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Las Vegas, NV 89130**

**Spring Mountains Herd Management Complex –
Final Population Management Plan
and Environmental Assessment
NV-052-2007-50**



**Photos from the Spring Mountains Complex
by Ashley Beazer, October 2006**

Introduction	2
Background Information	2
Purpose and Need	4
Need for Action	4
Conformance with Existing Land Use Plans	5
Conformance with Rangeland Health Standards and Guidelines	5
Relationship to Statutes, Regulations or Other Plans	5
Decision to Be Made	6
Scoping and Issue Identification	6
Issues Not Addressed in this EA	7
Proposed Action and Alternatives	8
Actions Common to Alternatives A-C	9
Descriptions of Alternatives Considered In Detail	9
Alternative A: Proposed Action – Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed	9
Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control	10
Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings	10
Alternative D – No Action Alternative (Defer Population Control)	10
Alternatives Considered but Eliminated from Detailed Analysis	11
Gather to the High Point AML and Apply Fertility Control	11
Bait Trapping	11
Provide Supplemental Feed	12
Developing Additional Water Locations	12
Change the Current Established AMLs	12
Apply Fertility Control to Burros	12
Description of the Affected Environment and Environmental Consequences	12
General Description of the Affected Environment	13
Elements of the Human Environment Present or Potentially Affected	13
Noxious Weeds	14
Wildlife, Threatened and Endangered Species, Special Status Species and Migratory Birds	15
Vegetation, Soils, Riparian/Wetland Areas and Water Quality	18
Recreation	20
Wild Horses and Burros	22
Wilderness and Wilderness Study Areas	28
Cumulative Impacts	29
Past	30
Present	30
Reasonably Foreseeable Actions	31
Summary of Past, Present, and Reasonably Foreseeable Future Actions	32
Mitigation Measures and Suggested Monitoring	32
Public Involvement, Consultation and Coordination	33
Public Scoping	33
Public Review and Comment of the Preliminary EA	39
List of Preparers	39
References	39

Introduction

Background Information

The Bureau of Land Management (BLM) Las Vegas Field Office (LVFO) is proposing to capture and remove excess wild horses and burros from the Spring Mountains Herd Management Complex (SMC) in order to achieve and maintain the established Appropriate Management Levels (AMLs) and prevent further deterioration of the range as a result of the current overpopulation of wild horses and burros. This Environmental Assessment (EA) has been prepared to analyze the environmental effects of potential population control methods (including fertility control treatment of mares released back to the range post-gather).

This EA contains the site-specific analysis of potential impacts that could result with the implementation of the Proposed Action or alternatives to the Proposed Action (refer to EA, page 8-9 for a detailed description of the Proposed Action and alternatives to the Proposed Action). The EA ensures compliance with the National Environmental Policy Act (NEPA); it analyzes information to determine whether to prepare an Environmental Impact Statement (EIS) or issue a “Finding of No Significant Impact” (FONSI). A FONSI documents why implementation of the selected action will not result in environmental impacts that significantly affect the quality of the human environment.

The SMC is located in southern Nevada within Clark and Nye Counties. The complex totals 771,625 acres of public land and includes the BLM herd management areas (HMAs) and United States Forest Service (USFS) wild horse territories (WHTs) listed in Table 1.

Table 1. HMA and WHT Acres within the Spring Mountains Complex

HMA		WHT	
Red Rock	157,251	Red Rock	25,030
Wheeler Pass	273,260	Spring Mountains	102,257
Johnnie	177,310	Johnnie	36,517
Total Acres (BLM)	607,821	Total Acres (USFS)	163,804

The Red Rock HMA and Red Rock WHT are separated from the remainder of the SMC by either physical or geographical boundaries. They are included in this analysis due to their proximity to the other HMAs and WHTs. Historically, the Red Rock HMA and WHT were jointly managed with the Wheeler Pass HMA/Spring Mountains WHT. The remaining portions of the SMC have no physical or geographical boundaries to restrict movement of wild horses and burros. As a result, the area is managed as a Complex.

Portions of the SMC are located within the Red Rock Canyon National Conservation Area and the Spring Mountains National Recreation Area. USFS-managed WHTs are included for analysis purposes. Refer to Figure 1 for a map of the affected area.

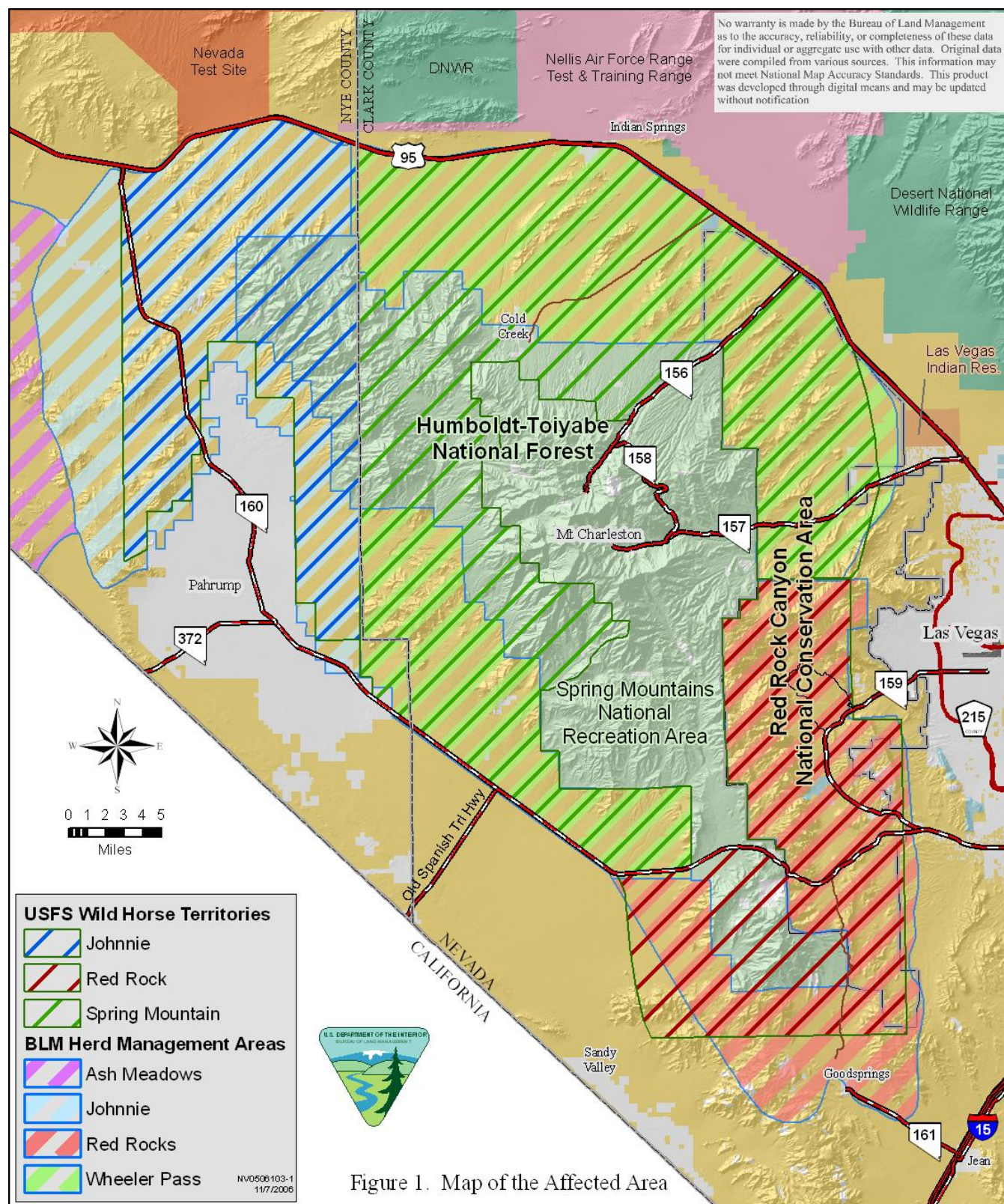


Figure 1. Map of the Affected Area

The Appropriate Management Level (AML) for the jointly-managed SMC is 147 wild horses and 146 burros. AML was set through various BLM and Forest Service planning decisions (refer to EA, pages 21-22 for more information). As discussed in those decisions, the AML for the SMC represents the maximum number which can graze without damage to the range.

An emergency removal of 22 wild horses from the Red Rock HMA was completed in February 2006 in response to the Goodsprings Fire which destroyed nearly 40 percent of the available habitat. No further removals of wild horses from the Red Rock HMA or WHT are proposed at this time. A nuisance removal of 37 wild burros from the Red Rock HMA was also completed in February 2006.

Wild horses were last removed from the Johnnie HMA/WHT and Wheeler Pass HMA/Spring Mountains WHT in June 2002 when 173-196 were captured. The post-gather population was estimated at 138-161 wild horses. Aerial census and distribution flights completed in March 2004, December 2005, May 2006, October 2006, and December 2006 estimates the current population of wild horses and burros within the SMC at 374 horses and 900 burros, 2.54 and 6.16 times the AML for wild horses and burros, respectively. This data suggests an annual population increase 17-20% for wild horses and 20% for burros.

In addition to population census and distribution flights, resource monitoring data indicates the current overpopulation of wild horses and burros is resulting in heavy to excessive utilization of key forage and browse species within the SMC. The excessive utilization has led wild horses and burros to turn to less preferred plants for food, including plants containing tannins which can be toxic for equines when consumed in large amounts. Although wild horses within the Wheeler Pass/Spring Mountain HMA/WHT are currently in good physical condition, several of the wild horses in the Johnnie HMA/WHT are in poor condition with the remainder mostly in fair condition. Burros throughout the SMC are generally in good condition with the exception of several burros located in the Johnnie HMA. Continued consumption of plants containing tannins has potential to impact animal health.

Analysis of the above information indicates that excess wild horses and burros are present and require immediate removal. As a result, any decision of the authorized officer will be implemented effective upon issuance under authority provided in 43 Code of Federal Regulations (CFR) 4770.3 (a) and (c).

Purpose and Need

Need for Action

Vegetation and population monitoring in relation to use by wild horses and burros in the SMC has determined that current wild horse and burro population levels are exceeding the range's capacity to sustain wild horse and burro use over the long-term. Resource damage is occurring and is likely to continue to occur without immediate action. The purpose of the proposed population control is to remove the excess animals in order to achieve a thriving natural ecological balance between wild horse and burro populations, wildlife, vegetation, and water resources and to protect the range from further deterioration associated with overpopulation of

wild horses and burros as authorized under Section 3 (b) (2) of the 1971 Wild Free-Roaming Horses and Burros Act (1971 Act) and Section 302 (b) of the Federal Land Policy and Management Act of 1976.

The Proposed Action is needed to prevent further resource deterioration and to assure that wild horses and burros are managed at the minimum feasible level of management and in consultation with State wildlife agency as required Section 3(a) of the 1971 Act. Applying fertility control measures as a part of the proposed action would slow reproduction rates of mares returned to the SMC following the gather, allowing vegetation resources time to recover. It would also decrease gather frequency and disturbance to individual animals and the herd and provide for a more stable herd structure.

Conformance with Existing Land Use Plans

The Proposed Action and other action alternatives are in conformance with the Las Vegas Resource Management Plan and Final Environmental Impact Statement (RMP) (October 1998). The Las Vegas RMP Record of Decision (ROD) states in WHB-2-f: *“Wild horses and burros will be removed when animals are residing on lands outside the Herd Management Area or when the Appropriate Management Level is exceeded.”*

The action alternatives are also in conformance with the Red Rock Canyon NCA RMP Record of Decision dated May 2005 which states in part: *“The number of wild horses and burros will be managed at the Appropriate Management Levels as defined in Environmental Assessment (NV050-04-346)”*

Conformance with Rangeland Health Standards and Guidelines

The Proposed Action and other action alternatives are in conformance with the Mojave/Southern Great Basin Resource Advisory Council (RAC) Rangeland Health Standards and Guidelines which require BLM to manage wild horses and burros within AML and in balance with other uses:

- Guideline 4.1: *“Wild horses and burro population levels in HMAs should not exceed AML.”*
- Guideline 4.2: *“...management levels will not conflict with achieving or maintaining standards for soils, ecological components, or diversity of habitat or biota.”*
- Guideline 4.3: *“Interaction with herds should be minimized. Intrusive gathers should remove sufficient numbers of animals to ensure a period between gathers that reflects national wild horse and burro management strategies.”*

Relationship to Statutes, Regulations or Other Plans

Public lands are managed under the Federal Land Policy and Management Act of 1976 (FLPMA). The FLPMA emphasizes that the public lands are to be managed to protect the quality of scenic, ecological, environmental, and archeological values; to preserve and protect

public lands in their natural condition; to provide feed and habitat for wildlife and livestock; and to provide for outdoor recreation. The FLPMA also stresses harmonious and coordinated management of the resources without permanent impairment of the environment.

The Proposed Action and action alternatives are in conformance with Section 302 (b) of FLPMA. They are also in conformance with the regulations found at Title 43 CFR 4700 as follows:

- 43 CFR 4700.0-6 (a): *Wild horses and burros shall be managed as self-sustaining populations of healthy animals and in balance with other uses and the productive capacity of their habitat.*
- 43 CFR 4700.0-6 (e): *Healthy excess wild horses and burros for which an adoption demand by qualified individuals exists shall be made available at adoption centers for private maintenance and care.*
- 43 CFR 4710.4: *Management of wild horses and burros shall be at the minimum level necessary to attain the objectives identified in approved land use plans.*
- 43 CFR 4720.1: *Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exist, the authorized officer shall remove the animals immediately.*

The action alternatives are also consistent with management direction in the 1996 Spring Mountains National Recreation Area General Management Plan (SMNRA GMP). Relevant management direction from the SMNRA GMP is included in Appendix I for reference.

No federal, state, or local law or requirement imposed for the protection of the environment will be threatened or violated under the proposed action or any action alternatives described in detail in this EA.

Decision to Be Made

The authorized officer will select the population control method(s) to be implemented to achieve and maintain the established Appropriate Management Levels (AMLs) for the Spring Mountains Herd Management Complex (SMC) and to prevent the further deterioration of the range resulting from overpopulation of wild horses and burros.

Scoping and Issue Identification

On July 3, 2006, a scoping letter was mailed to 52 individuals, groups, and agencies, requesting any concerns, data or information regarding the BLM Las Vegas Field Office's proposal to remove excess wild horses and burros from the Spring Mountains Complex in January 2007. Comments were received from 23 individuals, groups and agencies in response to the scoping letter. The Las Vegas Field Office also conducted scoping meetings with the Nevada Department of Wildlife (NDOW) and the USFS. Notes from the scoping meetings are included in the record. For a detailed summary of the public comments received and how BLM used

those comments in preparing this environmental assessment, refer to the EA, pages 33-38 and Appendix VIII.

The following issues were identified as a result of public and internal scoping and will be used in this EA to analyze the alternatives:

1. Will the proposed action and alternatives to the proposed action achieve and maintain the appropriate management levels of wild horses and burros?
2. What are the potential impacts to wild horses and burros, as well as other elements of the human environment, from potential capture, removal and handling operations?
3. Is there potential to slow population growth of wild horses through fertility control application?
4. Is there potential for inbreeding of wild horses or burros as a result of low population numbers?
5. What are the current impacts to natural resources and native wildlife resulting from overpopulation of wild horses and burros? What effect will achieving and maintaining AML have on these resources?

Issues Not Addressed in this EA

Several of the comments received in response to public scoping were outside the scope of this environmental analysis. They include:

- Suggestions to re-allocate forage/water from other uses to wild horses and burros are outside the scope of this analysis. Forage and water allocations were made in decisions which established the AML of wild horses and burros within the SMC. These decisions remain in effect.
- Suggestions to extend current HMA/WHT boundaries to the original HA boundary are outside the scope of this analysis. HMAs and WHTs within the SMC were designated in the 1996 SMNRA GMP, the 1998 Las Vegas RMP, and the 2005 Red Rock Canyon National Conservation Area RMP. Through these decisions, portions of the original Herd Areas were identified as unsuitable for long-term management of wild horses and burros. These decisions also remain in effect.
- Concerns about BLM staffing or budgetary impacts are also outside the scope of this analysis. These are administrative issues internal to BLM. When a determination is made that excess wild horses and burros exists, Section 3 (b) (2) of the 1971 Wild Free-Roaming Horses and Burros Act requires their immediate removal.
- Several comments expressed concern that BLM is violating the 1971 Act by not managing HMAs principally for wild horses and burros. The HMAs and WHTs within the Spring Mountains Complex were designated for long-term management of wild horses and burros in approved land use plans, but were not designated as wild horse or burro ranges to be managed principally, but not exclusively, for wild horses and burros.

- Some expressed concern about BLM's annual statistical report which may report different HMA acreages, AMLs or population numbers from year to year. This issue is also outside the scope of this analysis (i.e., the scope of this analysis is limited to analyzing the environmental effects of potential population control methods in order to achieve and maintain AMLs and prevent further deterioration of the range as a result of the current overpopulation of wild horses and burros). Acreages within Herd Areas (HAs) and HMAs are updated by the National Program Office based on the ongoing HA/HMA acreage tracking project. AMLs may also change based upon in-depth analysis of monitoring data and issuance of decisions. Population statistics may also vary from year to year; animals can and do move between HMAs. In addition, population census is conducted approximately once every three years; interim population estimates are based on past annual population growth while actual populations may grow faster or more slowly than projected.
- Some suggested holding an adoption concurrent with the proposed population control. These are administrative actions internal to BLM which are outside the scope of this analysis. However, BLM agrees finding good homes for excess wild horses and burros is of paramount importance. Any wild horses and burros removed from the SMC will be transported to BLM facilities (i.e. Kingman, Ridgecrest and Palomino Valley) and made available for adoption. BLM is also asking anyone who is interested in adopting a SMC wild horse or burro and who also meets BLM's adoption and facilities requirements to mail a completed adoption application to the BLM Las Vegas Field Office, Attn: Jerrie Bertola. Depending on the level of qualified adopter interest we receive, BLM would like to work collaboratively with non-profit groups and other interested individuals to adopt SMC wild horses and burros.

Proposed Action and Alternatives

This section of the EA describes the Proposed Action and alternatives, including any that were considered but eliminated from detailed analysis. Alternatives analyzed in detail include the following:

- Alternative A : Proposed Action -- Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed
- Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control
- Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings
- Alternative D: No Action Alternative (Defer Population Control)

The Proposed Action and other action alternatives were developed to meet the purpose and need (i.e. achieve and maintain AML and prevent further range deterioration) and in response to the issues identified during scoping. Although the No Action (Defer Population Control) alternative does not comply with the 1971 Wild Free-Roaming Horses and Burros Act (as amended), nor meet the purpose and need for action, it is included as a basis for comparison with the action alternatives.

Actions Common to Alternatives A-C

The following actions are common to Alternatives A, B, and C:

- All capture and handling activities would be conducted in accordance with the Standard Operating Procedures (SOPs) described in the Nevada Wild Horse Gather Contract (see Appendix II). Multiple capture sites (traps) would be used to capture wild horses and burros within the SMC. Whenever possible, capture sites would be located in previously disturbed areas. Capture techniques would be the helicopter-drive trapping method and/or helicopter-roping from horseback. Bait trapping may also be utilized on a limited basis, as needed.
- An Animal and Plant Inspection Service (APHIS) veterinarian may be on-site, as needed, to examine animals and make recommendations to BLM for care and treatment of wild horses and burros in accordance with Washington Office Instruction Memorandum (IM) 2006-23. Refer to Appendix III.
- Selection of animals for removal and/or release would also be guided by BLM's *Gather Policy and Selective Removal Criteria for Wild Horses* (Washington Office IM 2005-206). Refer to Appendix IV.
- Blood samples would be collected and analyzed to establish baseline genetic data (genetic diversity, historical origins, unique markers, and norms for the population). The samples would be collected from breeding age animals and the data collected would be compared to subsequent samples when the area is re-gathered over the next decade. A veterinarian or other trained personnel would draw blood.
- BLM would introduce four (4) mares from the Wheeler Pass HMA into the Red Rock HMA in order to assure genetic diversity (decrease the risk of inbreeding as a result of low population numbers) of the Red Rock wild horse herd over the next 5-10 year period. This action is consistent with the decision(s) outlined in the Decision Record/Finding of No Significant Impact and EA NV-050-04-346 dated September 3, 2004.

Descriptions of Alternatives Considered In Detail

Alternative A: Proposed Action – Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

The Proposed Action is to gather about 95% of the current estimated wild horse and burro population within the SMC, or about 374 wild horses and 900 burros, in January 2007. Of the animals gathered, approximately 262 excess wild horses and 779 excess wild burros would be removed and shipped to BLM holding facilities where they will be prepared for adoption and/or sale to qualified individuals or long term holding. The estimated population remaining on the range following the gather would be about 112 wild horses and 121 wild burros.

- Of the 87 wild horses returned to the Johnnie and Wheeler Pass/Spring Mountains HMAs post-gather, 50-60% would be studs (44-52), with the remainder mares (35-43). All the mares released would be subject to fertility control experimentation research with a one-year treatment of Porca Zona Pellucida (PZP). Follow-up applications of one-year PZP through

darting would be completed during Years 2-5, as needed, to slow population growth. Mares on the Red Rock herd area would also be treated with PZP via darting, over the next 1-5 years, as needed, to slow annual population growth to 5% or less. Fertility control would be conducted in accordance with Standard Operating Procedures as described in Appendix V.

Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Under Alternative B, about 95% of the current estimated wild horse and burro population within the SMC, or about 374 wild horses and 900 burros, would be gathered in January 2007. Of the animals gathered, approximately 276 excess wild horses and 796 excess wild burros would be removed and shipped to BLM holding facilities where they will be prepared for adoption and/or sale to qualified individuals or long term holding. The estimated population remaining on the range following the gather would be about 98 wild horses and 104 wild burros.

Unlike the Proposed Action, mares returned following the gather to the Johnnie and Wheeler Pass/Spring Mountains HMAs would not be subject to fertility control experimentation research. All other capture and handling activities would be the same as described for the Proposed Action.

Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Under Alternative C, capture, removal, and the estimated post-gather population of wild horses and burros would be as described for the Proposed Action. However, 20% of the adult breeding population within the Johnnie HMA/WHT and Wheeler Pass/Spring Mountains HMA/WHT would be managed as geldings. Following the gather, approximately 17 studs would be transported to a BLM holding facility, gelded, then returned to the range in about 4-6 weeks. Under this alternative, none of the mares released post gather (about 35) would be subject to fertility control experimentation research. All other capture and handling activities would be the same as described for the Proposed Action.

Alternative D – No Action Alternative (Defer Population Control)

Under the No Action alternative, a gather to remove excess wild horses and burros within the SMC would not take place in January 2007. There would be no active management to control the size of the wild horse and burros populations at this time. However, existing management including monitoring would continue.

The 1971 Wild Free-Roaming Horses and Burros Act requires the Bureau to prevent the range from deterioration associated with overpopulation of wild horses and burros, and to preserve and maintain a thriving natural ecological balance and multiple use relationship in that area. The No Action Alternative would not comply with the 1971 Act or with applicable federal regulations and Bureau policy; nor would it comply with the Mojave/Southern Great Basin RAC Standards and Guidelines for Rangeland Health and Healthy Wild Horse and Burro Populations. It is included as a baseline for comparison with the action alternatives, as required under NEPA.

Alternatives Considered but Eliminated from Detailed Analysis

Gather to the High Point AML and Apply Fertility Control

Under this alternative, the current population of about 374 wild horses and 900 wild burros would be gathered and about 227 wild horses and 754 burros would be removed. Of the 130 wild horses returned to the HMA post-gather, approximately 65 would be mares. These release mares would be subject to fertility control experimentation research or a one-time treatment of two-year Porca Zona Pellucide (PZP). Standard operating procedures for fertility control and capture and handling activities would be required as described in Appendix V.

Under this alternative, pregnant mares would foal normally during the 2007 foaling season, resulting in actual populations which would exceed the high point of the AML range at that time. While application of two-year PZP would slow population growth, the actual population would remain above the high point of the AML range over the next 4-5 year period as follows:

Table 2. Johnnie and Wheeler Pass/Spring Mountains HMAs/WHTs – Projected Population Size

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Efficiency %	Normal	94%	82%	68%	Normal
Wild Horse Numbers	156	158	165	175	210

This alternative was eliminated from detailed analysis because actual population numbers would exceed AML (147 horses) until the next gather could be scheduled in 4-5 years. At population numbers in excess of AML, continued deterioration of the range would be expected. This result would be contrary to law, regulation and policy, as follows: *“We interpret the term AML within the context of the statute to mean that ‘optimum number’ of wild horses which results in a thriving natural ecological balance and avoids a deterioration of the range”* (109 IBLA 119 API 1989). The upper range of the AML established for the HMA represents the maximum population for which a thriving natural ecological balance would be maintained. The lower range represents the number of animals to remain in the HMA following a wild horse gather in order to allow for an anticipated four to five year gather cycle, and prevent the population from exceeding the established AML between gathers: *“Proper range management dictates removal of wild horses before the herd size causes damage to the rangeland. Thus, the optimum number of wild horses is somewhere below the number that would cause resource damage...”* (118 IBLA 75).

Bait Trapping

Another option considered was relying primarily on water and/or bait trapping as the primary gather/removal method as compared to helicopter drive-trapping or helicopter-roping from horseback methods. However, this method is extremely time and labor intensive, requiring daily monitoring, often over several weeks to effectively capture/remove the animals. Helicopter drive-trapping or helicopter-roping from horseback have proven to be safe and effective methods for capture/removal and are expected to be more cost-effective given the number of animals proposed for removal and the size and complexity of the affected area. Bait trapping would be considered in certain situations, as appropriate.

Provide Supplemental Feed

Providing supplemental feed (hay) does not meet the definition of minimum feasible management and is inconsistent with current law, regulation and policy. Refer to 43 CFR 4710.4.

Developing Additional Water Locations

The BLM's September 3, 2004 AML decision for wild horses within the Red Rock HMA is currently under appeal to the Interior Board of Land Appeals (IBLA). This decision included the Bureau's proposal to consider development of additional water sources within the Red Rock HMA in order to better manage the HMA. Additional water development is one of the points under appeal. No date for the hearing has currently been scheduled. Proposing additional water developments at this time is expected to result in additional appeals; therefore, this alternative was not considered in detail, and BLM would likely not consider additional water developments until IBLA issues a decision regarding the current appeal.

Change the Current Established AMLs

AMLs for the SMC HMAs/WHTs were established based on in-depth analysis of monitoring data (refer to EA, page 21-22). This is consistent with the Interior Board of Land Appeals ruling which states: "*We note that the Secretary, in his June 1981 letter, indicates that an appropriate determination of the number of wild horses to be permitted on the public range, consistent with Section 3(b) of the Act, requires relying on an intensive monitoring program involving studies of grazing utilization, trend in range condition, actual use and climatic factors...*" (109 IBLA 120). By removing wild horse and burro numbers in excess of the AML, the BLM and the Forest Service will have an opportunity to complete additional monitoring over the next five to ten year period and to make adjustments in the AML number (either up or down), if needed, based on resource monitoring results. Changing AMLs prior to completing the necessary monitoring, in-depth analysis, and compliance with NEPA is contrary to law, regulation and policy. Therefore, this alternative was not considered in detail.

Apply Fertility Control to Burros

Currently adoption demand for burros exceeds supply. Additionally, PZP is not yet approved for use in burros. Therefore, this option was not considered in detail.

Description of the Affected Environment and Environmental Consequences

This section of the environmental assessment briefly discusses the relevant components of the human environment which would be either affected or potentially affected by the Proposed Action and alternatives (refer to Table 3 below). Direct impacts are those that result from the management actions while indirect impacts are those that exist once the management action has occurred. By contrast, cumulative impacts result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Table 3: Critical Elements and Other Resources Checklist

CRITICAL ELEMENTS	Present	Affected	OTHER RESOURCES	Present	Affected
ACECs	YES	NO	Fire Management	YES	NO
Air Quality	YES	NO	Forestry and Woodland	YES	NO
Cultural	YES	NO	Land Use Authorizations	YES	NO
Environmental Justice	NO	NO	Livestock Management	NO	NO
Floodplains	NO	NO	Minerals	YES	NO
Waste (Hazardous or Solid)	NO	NO	Paleontology	YES	NO
Noxious Weeds	YES	YES	Rangeland Vegetation Resources	YES	YES
Native American Religious Concerns	YES	NO	Recreation	YES	MAY
Migratory Birds	YES	NO	Socioeconomics	YES	NO
Prime or Unique Farmlands	NO	NO	Soils	YES	YES
Riparian-Wetland Zones	YES	YES	Visual Resources	YES	NO
T&E Species	YES	MAY	Wild Horse and Burros	YES	YES
Water Quality	YES	YES	Wildlife	YES	YES
Wild and Scenic Rivers	NO	NO	Wilderness and Wilderness Study Area	YES	MAY

General Description of the Affected Environment

The SMC area ranges in elevation from approximately 3,000 feet above sea level (asl) to approximately 10,000 feet asl. Dominant vegetation includes traditional Mojave Desert vegetation including blackbrush communities, white bursage communities, and at higher elevations bitterbrush and mountain mahogany communities. Precipitation ranges from 4” to 18” depending on year and elevation within the SMC. Topography varies from valley bottoms to steep mountain slopes. Water is the most limiting factor within the SMC; throughout the hot summer months wild horses spend the majority of their time located on land managed by USFS. During the hot summer months, burros will increase the frequency and the distance they will travel to water. During the cooler temperature season, burros may water only every other day. Soils within the SMC are generally shallow poorly formed soils around rocky outcrops. Soils beyond the rock outcrops and related associations generally are moderately deep having stratified coarse textures that include cobbles, gravels, sands, and sandy to gravelly loams; have little organic matter and variable clay content are moderately to very alkaline and typically have moderate to moderately rapid permeabilities. One inactive livestock grazing permit is within the SMC and Wheeler Wash on the southern portion of the Wheeler Pass HMA.

Elements of the Human Environment Present or Potentially Affected

The following critical or other elements of the human environment are present and may have potential to be affected by the proposed action or the alternatives:

Noxious Weeds

Affected Environment

Invasive, non-native, and noxious weed species are known to exist on public lands within the administrative boundaries of the Las Vegas Field Office and may occur within the SMC. Not all of the areas within the SMC have been inventoried for invasive, non-native and noxious weeds. Invasive species are aggressive, ecologically damaging, undesirable plants, which severely threaten biodiversity, habitat quality, and ecosystems. Due to their aggressive nature, invasive species can eventually spread into established plant communities. Invasive weeds typically establish in disturbed and high traffic areas. Any surface disturbance activity such as road construction and maintenance, pipeline trenching, and fence building can create a potential environment for invasive species. Vehicles, wind, wild horses and burros, birds, campers, hikers, wildlife, and waterways spread invasive species seeds.

Non-native, invasive species include noxious weeds, such as Russian knapweed, Malta star thistle, salt cedar. Undesirable species, such as cheatgrass, red brome and Sahara mustard occur in areas throughout the SMC. These species generally establish in areas where surface disturbance has occurred or where native plant species are stressed.

Environmental Consequences

Impacts of Alternative A: Proposed Action -- Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

Under the Proposed Action, some short term ground disturbance (less than 2 acres) may occur as a result of capture and removal operations (at trap-site locations and the temporary holding facility location). To minimize the risk for noxious weed establishment, these areas would be monitored post-gather and treated if needed, to remove any noxious weeds. However, removing excess horses and burros and managing populations within the AML range over the short and term would also be expected to reduce the potential for noxious weed infestations which can result from wild horses and burros that trail, graze, and loaf in the uplands, around springs and riparian areas. These activities can result in an increase in bare ground and a ready seed bed for noxious weeds to grow. Removing excess horses and burros and managing populations within the AML range over both the short and long term would allow currently deteriorated plant communities to recover and to regain plant vigor. A healthy and vigorous plant community would reduce the potential for invasive and non-native species to invade and become established in the SMC.

Impacts of Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Under Alternative B, impacts associated with capture and removal operations are expected to be similar to the Proposed Action.

Impacts of Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Under Alternative C, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action.

Impacts of Alternative D: No Action Alternative (Defer Population Control)

Under Alternative D, the risk for noxious weeds to become established in the SMC would be expected to increase as wild horse and burro populations continue to grow above the AML range and loafing, trailing, and other behaviors contribute to increased amounts of bare ground providing a ready seed bed for noxious weeds to grow.

Wildlife, Threatened and Endangered Species, Special Status Species and Migratory Birds

Affected Environment

The mosaic of plant communities and topographic features that are found throughout the SMC supports a wide variety of wildlife species that use the habitats within the SMC for resting, courtship, foraging, travel, supplies of food and water, thermal protection, escape cover and reproduction.

Species specific surveys were not conducted for common wildlife within the SMC. Species that are typically found within this type of habitat, include: black-tailed jackrabbit (*Lepus californicus*), desert pocket mouse (*Chaetodipus penicillatus*), Merriam's kangaroo rat (*Dipodomys meriami*), greater road runner (*Geococcyx californianus*), horned lark (*Eremophila alpestris*), common raven (*Corvus corax*), black-throated sparrow (*Amphispiza bilineata*), side blotched lizard (*Uta stansburiana*), western whiptail lizard (*Cnemidophorus tigris*), Mojave green rattlesnake (*Crotalus scutulatus*), and banded Gila monster (*Heloderma suspectum cinetum*). In general, big game species that utilize the SMC include elk (*Cervus elaphus*), desert bighorn sheep (*Ovis canadensis nelsoni*) and mule deer (*Odocoileus hemionus*). Predators include mountain lion (*Felis concolor*), coyote (*Canis latrans*), bobcat (*Felis rufus*), civet cat (*Bassariscus astutus*), kit fox (*Vulpes macrotus*), gray fox (*Urocyon cinereoargenteus*), badger (*Taxidea taxus*) and two species of skunk. Birds-of-prey include peregrine falcon (*Falco peregrinus*), northern goshawk (*Accipiter gentiles*), and golden eagle (*Aquila chrysaetos*). Numerous avian fauna, bats, reptilian, amphibian, invertebrates and other wildlife species are present within the HMAs. For a complete list of species found within the Las Vegas Field Office jurisdiction, which includes the SMC, see the Las Vegas RMP/FEIS dated October 1998 and the Red Rock Canyon NCA RMP dated May 2005.

Threatened and Endangered Species are species that are either federally listed as threatened or endangered, or are species that are being proposed for listing. The desert tortoise (*Gopherus agassizii*), is the only listed species known to occur within the SMC. The Mojave population of desert tortoise was listed as threatened in 1990, and has the potential to occur with creosote bush scrub, creosote bursage complex, Mojave mixed scrub, and salt desert scrub. The desert tortoise primarily forages on annual wild flowers and native desert grasses.

Another listing for special status species is the BLM sensitive category. These may be species that are listed or proposed for listing by a state or county in a category that implies potential endangerment or extinction. This is above and beyond those species listed as threatened and endangered by the US Fish & Wildlife Service.

The BLM is mandated to protect and manage threatened, endangered, candidate, proposed, and sensitive plant species and their habitat. The BLM is also required to protect and manage sensitive species jointly identified with the appropriate state agency.

Some of the BLM sensitive wildlife species (not including federally listed species) known to occur within the HMA are: phainopepla (*Phainopepla nitens*), western burrowing owl (*Athene cunicularia hypugaea*), banded Gila monster (*Heloderma suspectum cinetum*) and desert bighorn sheep (*Ovis canadensis nelsoni*).

- Phainopepla may occur throughout the SMC within ephemeral washes and upland scrub areas supporting catclaw acacia or mesquite plants.
- Western burrowing owls occur within creosote bush scrub, creosote bursage complex, Mojave mixed scrub and salt desert scrub similar to desert tortoises. This species commonly nests in abandoned kit fox, badger, or tortoise burrows and spends much of its time on the ground or on low perches such as fence posts or dirt mounds.
- The potential area of affect contains habitat for the banded Gila monster Banded Gila monsters are one of only two species of venomous lizards found in North America. Active at night, Gila monsters can be found below 5,000 feet elevation in desert wash, spring and riparian habitats that integrate with complex rocky desert scrub landscapes. They spend over 95% of their lives underground using deep crevices and caves on rocky slopes for refuge from extreme winter and summer temperatures. Gila monsters are a federal species of concern, a Nevada state protected species, and are listed as a high-priority evaluation species in the Clark County MSHCP.
- Desert bighorn sheep are found throughout the Spring Mountains (La Madre, Red Rock and South Spring Mountains) and Bird Spring Range. Bighorns generally are observed in or within 1 mile of steep terrain. Their use overlaps some of the same areas as the wild horses and burros.

Most birds are protected by the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 U.S.C. 703-711), that makes it unlawful to take, kill, or possess migratory birds. A list of those protected birds can be found in 50 CFR 10.13. Surveys for migratory birds, other than special status species, were not conducted in support of this document. Migratory birds that are known to associate with the creosote-bursage scrub plant community include the horned lark, common raven, black-throated sparrow, phainopepla, and the burrowing owl.

Raptors and birds of prey occur and breed throughout the area are protected by the federal government under the Migratory Bird Treaty Act and by the State of Nevada. Raptors include all vultures, hawks, kites, eagles, ospreys, falcons, and owls. Since these birds occupy high trophic levels of the food chain, they are regarded as sensitive indicators of ecosystem stability and health.

Environmental Consequences

Impacts of Alternative A: Proposed Action -- Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

Trap sites would be constructed and operated under the direction and guidance of a wildlife biologist to avoid potential conflicts with the desert tortoise. Wildlife adjacent to trap sites would be temporarily displaced during capture operations by increased activity of trap setup, and helicopter and vehicle traffic. Reduction of wild horse numbers would result in reduced competition between wild horses and burros and wildlife for available forage and water resources as soon as the gather is completed. Disturbance associated with wild horses and burros along stream bank riparian habitat and adjacent upland habitat would be reduced. The re-application of fertility control on wild horses via darting has potential to temporarily displace wildlife (for about one to two weeks) during the darting operations in years 2-5 following the gather.

Impacts of Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Under Alternative B, impacts associated with capture and removal operations are expected to be similar to the Proposed Action. However, post-gather competition between wildlife and wild horses should be reduced over the Proposed Action as fewer wild horses would be competing with wildlife for limited forage resources. Any potential for temporary displacement of wildlife in years 2-5 following the gather would be eliminated as fertility control via darting would not be applied.

Impacts of Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Under Alternative C, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action. However, the potential for temporary displacement of wildlife would be reduced because fertility control application via darting would not be applied under this alternative. The portion of the population managed as geldings would be expected to form small bands similar to bachelor bands but without the individual and social behavior exhibited by young bachelors. This should result in less displacement or disturbance to wildlife over the long-term.

Impacts of Alternative D: No Action Alternative (Defer Population Control)

Wildlife would not be temporarily displaced or disturbed under the No Action alternative. However, there would be continued competition with wild horses and burros for limited water and forage resources. This competition would increase as wild horse and burro numbers continued to increase annually. Wild horses and burros are aggressive around water sources, and some wildlife species may not be able to compete successfully. The competition for resources

may lead to increased stress or dislocation of native wildlife species. Additionally, increased competition between wild horses and burros and wildlife species for the new growth important for plants to make and store carbohydrates and for promoting long-term vegetation recovery, could result impact vegetation recovery and encourage non-native or invasive plants to become established. This could result in deteriorated habitat conditions for native wildlife over the longer term.

Vegetation, Soils, Riparian/Wetland Areas and Water Quality

Affected Environment

The SMC primarily consists of sites dominated by desert shrubs, with low percentages of perennial herbaceous plants. Short-lived ephemeral-type forbs and grasses may be periodically abundant when favorable climatic conditions result in “desert bloom”. Joshua trees, Spanish daggers and other cactus and succulents are also common. Wild horses and burros forage on the following key grass and browse species: galleta grass, Indian ricegrass, stipa species, white bursage, winterfat, spiny menodora, and annuals including red brome and cheat grass. Vegetation located on the higher elevation also include pinyon, juniper, bitterbrush, mountain mahogany, sagebrush, Apache plume, live scrub oak, desert almond and Mormon tea. Gamble oak and blackbrush are examples of a less preferred forage containing tannins which can be toxic to equines when consumed in large amounts, additionally broomsnake weed contains selenium which can cause illness or death if consumed in large amounts.

Wild horses and burros generally will not use areas with slopes exceeding about 30 percent. Wild horses and burros travel and congregate in small bands of five to eight animals. Their daily feeding and watering habits create well-used trails within the SMC. Repetitive animal travel along these trails disturbs and compacts soils, destroys vegetation and prevents additional recruitment, and increases the likelihood of wind and rill erosion in many areas. Wild horse and burro trails are often also used for recreational purposes such as hiking, horseback riding, mountain biking, and motorcycle riding. As the trails are used more frequently, they become wider and deeper and in some cases become unusable to the animals. This type of trail evolution and proliferation are presenting increasing conflicts for land and resource managers.

There are numerous soil associations and individual soils within the SMC under consideration. The soils within SMC vary widely in their potential for major land uses. Rangeland is by far the dominant land use, in terms of acreage. Soils near water sources generally have the highest production potential, but may be limited due to over utilization or accumulated salts. Production on the soils may also be limited by shallow depth to hardpan or other restrictive root barriers, slope, surface rock fragments, or depth to bedrock. Microbial crust, a complex assortment of cyanobacteria, green algae, fungi, and other bacteria that forms in open spaces between shrubs, occurs in areas of the SMC. Microbial crusts have several functions that include, but are not limited to, retaining soil moisture, reducing wind and water erosion, contributing to soils organic matter, and discouraging annual weed growth.

Environmental Consequences

Impacts of Alternative A: Proposed Action -- Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

On the ground resource monitoring data indicates the current overpopulation of wild horses and burros is resulting in heavy to excessive utilization of key forage and browse species within the SMC. The excessive utilization has led horses and burros to turn to less preferred plants for food, including plants containing tannins which can be toxic for equines when consumed in large amounts. Although horses within the Wheeler Pass/Spring Mountain HMA/WHT are currently in good physical condition, several of the wild horses in the Johnnie HMA/WHT are in poor condition with the remainder mostly in fair condition. Burros throughout the SMC are generally in good condition with the exception of several burros located in the Johnnie HMA. Continued consumption of plants containing tannins has potential to further impact animal health.

Implementation of the Proposed Action would reduce the wild horse and burro population to the mid-high point of the AML range, prevent over-utilization of remaining forage species and promote re-growth of vegetation from and natural recovery of the plants that have been overgrazed. The potential for competition among wild horses and burros and wildlife for forage would be decreased and grazing pressure on the remaining vegetation would be lessened due to the gather and removal of excess wild horses and burros. Further, the gather and removal of excess wild horses and burros would allow for the young vegetation to grow and develop root systems which would provide healthy plants able to withstand grazing from wild horses and burros and wildlife in the future.

The direct impacts to vegetation with implementation of the Proposed Action as a result of the gather and removal operations could include disturbance of native vegetation immediately in and around temporary trap sites, and holding and processing facilities. Impacts could be by vehicle traffic and the hoof action of penned wild horses, and could be locally severe in the immediate vicinity of the corrals or holding facilities. Generally, these activity sites would be small (less than one half acre) in size. Since most trap sites and holding facilities would be re-used during recurring wild horse gather operations, any impacts would remain site-specific and isolated in nature. In addition, most trap sites or holding facilities are selected to enable easy access by transportation vehicles and logistical support equipment and would generally be adjacent to or on roads, pullouts, water haul sites, or other flat spots that were previously disturbed.

Removal of excess wild horses and burros would result in fewer hooves and reduced hoof action on the soil around unimproved springs and stream banks, which should lead to increased stream bank stability, improved riparian habitat conditions, and improved water quality. There would also be a reduction in hoof action on upland habitats, limited removal of new plant growth important to making and storing carbohydrates and promoting long-term vegetation recovery, and reduced competition for available water sources.

Impacts of Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Under Alternative B, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action. However, post-gather competition between wildlife and wild horses and burros would be reduced over the Proposed Action because the lower limit of AML would be achieved in the short-term under this alternative. Without the application of fertility control, however, the wild horse population would increase at the normal rate of 17-20% per year and would exceed AML sooner than under the Proposed Action. Alternative B would be expected to promote more rapid short-term recovery of vegetation which has received heavy utilization in the past.

Impacts of Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Under Alternative C, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action. However, by managing 20% of the adult breeding population as geldings, more lone wild horses or bachelor groups would be expected. This may allow for greater dispersion of wild horses throughout the SMC as it unlikely stallions would allow geldings to be part of their band. This could potentially enhance vegetation recovery by minimizing concentrations of animals in key forage and browse habitats.

Alternative D: No Action Alternative (Defer Population Control)

Under the No Action alternative, wild horse and burro populations would remain above AML; more hooves would result in increasing hoof action on soils around unimproved springs and stream banks, resulting in further impacts to riparian/wetland condition and water quality. Heavy to excessive utilization of forage and water resources would continue. Left unchecked over time, many of the key forage and browse species would be eliminated from the range. Areas of heavy to excessive utilization would expand, resulting in further damage to the vegetation. Eventually, long-term rangeland health would be jeopardized. In the absence of healthy rangelands, animal health would eventually be impacted, leading to increasing numbers of wild horses and burros in poor body condition and at risk of starvation or death without human intervention.

Recreation

Affected Environment

Development and expansion in the Las Vegas Valley has created the need for recreational uses to expand greater distances from Las Vegas. This expansion has increased the recreational uses in areas of the SMC. Approximately three OHV races are permitted near or within the boundaries of the SMC yearly. Both competitive and non-competitive events are permitted.

Other forms of recreation include: horse endurance events, commercial and casual trail rides, mountain biking, hiking, hunting, rock climbing and hounding, commercial motorized OHV guided tours, and amateur and professional photography. Casual use in these areas is high from

the growth of the Las Vegas Valley. Throughout the SMC, travel is limited to existing roads, trails, and dry washes.

Environmental Consequences

Impacts of Alternative A: Proposed Action -- Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

Implementation of the Proposed Action would be expected to improve rangeland health which would potentially enhance the aesthetic quality of recreational opportunities, such as hiking, wildlife viewing, and hunting. Opportunities to view wild horses and burros in the SMC would continue; however, there would be fewer animals in better body condition available for viewing than at present. Subsequent fertility control treatment by darting would be expected to slow population growth; opportunities to view mares with foals during the next 4-5 years would be reduced over the present situation. During years 2-5, wild horses may become familiar with the darting procedure and move to different locations to avoid the darting; this could lead to more or fewer opportunities for viewing. During the capture operation, it may be necessary to temporarily close BLM and FS roads to allow for the safe and humane capture of wild horses and burros. This would be accomplished in a manner to impact the fewest recreational users as possible.

Impacts of Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Under Alternative B, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action. Under Alternative B, the lower limit of AML would be achieved; fewer wild horses and burros would be available for viewing during the first year following the gather. In years 2-5 following the gather, more mares with foals would be available for viewing than with the proposed action since fertility control would not be applied.

Impacts of Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Under Alternative C, the impacts associated with capture and removal operations are expected to be similar to the Proposed Action. The gelding portion of the population may result in different individual or group behavior patterns that may be noticeable to individuals who have frequently observed or watched wild horses.

Impacts of Alternative D: No Action Alternative (Defer Population Control)

Under the No Action Alternative, wild horse and burro populations would continue to exceed the productive capability of the SMC; vegetation in riparian and uplands would continue to receive heavy to excessive utilization. This level of use would be expected to detract from the aesthetic values derived from recreational activities, such as hiking, hunting and wildlife viewing.

Wild Horses and Burros

Affected Environment

The SMC includes portions of three Herd Areas (HAs) which were delineated following the passage of the 1971 Wild Free-Roaming Horses and Burros Act (Spring Mountains, Mount Sterling and Last Chance). The three HAs comprised approximately 990,000 acres of public land (BLM or Forest Service). Through land use planning (1996 SMNRA GMP, 1998 Las Vegas and 2005 Red Rock Canyon National Conservation Area RMP's), a total of 771,625 acres has been designated as suitable for long-term management of wild horses and burros. The remainder was designated as unsuitable for long-term sustained horse and burro use. For more information, refer to Appendix VI.

In 1971, when the Act was passed, free and unrestricted movement of wild horses and burros from one HMA/WHT into another within the Spring Mountains could occur on a regular basis. Based on past inter-movement of animals, it is expected wild horses and burros remaining in the SMC have similar characteristics and genetic makeup. While the Red Rock HMA and Red Rock WHT are currently separated from the remainder of the SMC by physical or geographical boundaries, they are included in this analysis due to their proximity to the other HMAs and WHTs. The remaining portions of the SMC have no physical or geographical boundaries to restrict movement of wild horses and burros. Moreover, wild horses and burros generally depend on some portion of either the USFS or BLM public lands to provide habitat during the year. Typically, BLM public lands provide winter and spring-fall transition habitat, while USFS lands provide late spring-summer-early fall habitat. In setting AMLs (as discussed below), the USFS and BLM identified population sizes reflective of shared habitat (i.e. AMLs set by BLM and USFS are reflective of a single population; the BLM and USFS AMLs were not intended to be added together). As a result, the area is managed as a complex.

The USFS established AML in the 1996 Spring Mountains National Recreation Area General Management Plan (GMP). AML for the Spring Mountains WHT was established at 47 wild horses and 21 wild burros based upon limiting factors: available water and forage; area sensitivity; and animal condition. Population levels for the Wheeler Pass and Wheeler/Wallace portions of the Spring Mountains WHT were determined based upon allocation of 7% of the available water, while the Cold Creek portion was based upon allocation of the available forage. AML for the Red Rock WHT was established at 50 wild horses and 50 burros, while AML for the Johnnie WHT was established at 50 wild horses and 75 burros, based upon BLM recommendations and the best available information. The total AML for the SMC was set at 147 horses and 146 burros.

In the 1998 Las Vegas and 2005 Red Rock Canyon National Conservation Area RMPs, BLM established interim AMLs for the SMC WHTs to be managed jointly with the USFS WHTs as follows: Red Rock - 50 horses and 50 burros; Johnnie - 50 horses and 75 burros; and Wheeler Pass - 26 horses and 0 burros (Cold Creek). However, in fiscal year 2004 (Red Rock HMA, EA # NV-050-04-346) and 2006 (Johnnie and Wheeler Pass HMAs, EA # NV-052-05-399); BLM completed an in-depth analysis of monitoring data and issued final decisions which re-establish the AML for the three HMAs within the SMC. The total AML for the complex was set as a

population range of 63-93 wild horses and 103-192 wild burros, to be jointly managed with the Forest Service.

These decisions have led to a discrepancy in AMLs for the SMC, which BLM and the USFS are currently working to resolve. As a result, this analysis will be based on the USFS AML of 147 wild horses and 146 burros. By removing wild horse and burro numbers in excess of the AML, the BLM and USFS will have an opportunity to complete additional monitoring over the next five to ten year period and to make adjustments in the AML number (either up or down), if needed, based on resource monitoring results.

The current wild horse and burro population has been estimated based on the December 2006 census. Based on this census, the wild horse population is estimated at approximately 374 adult animals (254% of AML) while the adult burro population is estimated at approximately 900 animals (616% of AML).

Table 4 (below) summarizes the current estimated population of wild horses and burros and the number of excess animals proposed for removal for each HMA/WHT within the SMC. As discussed in the previous paragraph, the data shown in Table 4 is based on population census completed in December 9-13, 2006 because the December 2006 census was completed with more experienced observers, in good weather and optimal light, resulting in a more accurate estimate of wild horse and burro numbers than previous population projections. The previous population estimate for wild horses was 344 animals (87% of the December 2006 estimate) and for burros was 660 animals (64% of the December 2006 estimate). This difference is attributable to projections based on population census completed in December 2005 (with less experienced observers and poor light/decreased observability) and distribution flights (partial counts to determine concentration areas/seasonal ranges) completed in May and October 2006. The data for both wild horses and burros is within the expected range of variability. The increase in horse numbers between December 2005 and December 2006 reflects the 2005 foal crop which was not counted in December 2005; however, these animals are now yearlings and were counted in December 2006. The increase in burro numbers is attributable to poor weather, lack of light, and observer experience; it also includes foals born in 2005 which were not counted in 2005 but are now yearlings and were counted in December 2006. Moreover, research indicates burro populations are typically underestimated in terrain of this type by as much as 50% of the total population. Although population estimates and removal numbers have been updated based on the December 2006 census results, the estimated post-gather population of wild horses has changed from previous projections by 8 animals (from 104 wild horses to 112 post-gather). No change in the post-gather population of burros (121 burros would remain post-gather).

Table 4. AML and Population Summary for the Spring Mountains Complex Environmental Analysis

HMA/WHT	AML		Population Estimate		Estimated Removal Number ¹		Estimated Post-Gather Population	
	Horses	Burros	Horses	Burros	Horses	Burros	Horses	Burros
Red Rock	50	50	21	201	0	161	25 ²	40
Johnnie	47	21	85	573	45	513	40	60
Wheeler/ Spring Mtn	50	75	268	126	221	106	47	21
Total	147	146	374	900	266	780	112	121

Environmental Consequences

The WinEquus program, developed by Dr. Steven Jenkins at the University of Nevada at Reno was designed to assist wild horse and burro specialists evaluate various management plans and possible outcomes for management of wild horses. The population model is not applicable for burros. More information about the model is available upon request from the Las Vegas Field Office.

Population modeling was completed to analyze possible differences that could occur to the wild horse populations between alternatives. Included was analyzing removals of excess wild horses with fertility control, as compared to alternatives which consider removals of excess wild horses only. The No Action (no removal) alternative was also modeled. Modeling was completed for the SMC. One objective of the modeling was to identify if any of the alternatives “crash” the population or cause extremely low population numbers or growth rates. Minimum population levels and growth rates were found to be within reasonable levels and adverse impacts to the population are not likely. Graphic and tabular results are displayed in detail in Appendix VII.

Impacts of Alternative A: Proposed Action – Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

Under the Proposed Action, the post-gather population of wild horses and burros would be about 104 and 120, respectively. The post-gather numbers represent the mid-high point of the AML. This represents the number of animals to remain in the area following the gather in order to prevent the population from exceeding the established AML between gathers and thus prevent the need to gather annually. Implementation of the Proposed Action would allow 4-5 years to pass after each gather before the maximum AML is exceeded. *“We interpret the term AML . . . mean that “optimum number” of wild horses which results in a thriving natural ecological balance (TNEB) and avoids a deterioration of the range”* (109 IBLA 119 API 1989).

Under this alternative, pregnant mares would be treated with an initial liquid dose of PZP primer and adjuvant and a one and three-month pellet. Treatment would occur prior to their release. Treated mares would foal normally during the 2007 foaling season. Follow-up applications of

¹ Actual gather and removal numbers are based on the December 2006 census results as shown in Table 4.

² The addition of four mares from Wheeler Pass into the Red Rock HMA would be expected to result in a post-gather adult breeding population of 25 horses.

one-year PZP through darting would be completed during Years 2-5 following the gather in an effort to slow population growth for the Johnnie and Wheeler Pass/Spring Mountains HMAs/WHTs. Given terrain and the animal's movement during different seasons of the year, projected wild horse populations over the next 4-5 years are based on darting only about 80% of the initially treated mares. Under this alternative, projected wild horse populations would not be expected to exceed the current AML until Year 6 following the gather (about 2013).

Table 5. Johnnie and Wheeler Pass/Spring Mountains HMAs/WHTs – Projected Population Size

	Year 1	Year 2	Year 3	Year 4	Year 5
Efficiency %	Normal	94%	94%	94%	94%
80% Treated	104	85	88	91	94
20% Untreated	0	21	25	30	36
Total Population	104	106	113	121	130

Impacts associated with gathering wild horses and burros are well documented. Gathering wild horses causes direct impacts to individual animals such as stress, fear or confusion due to gather activities. These impacts may occur as a result of handling stress associated with the gather, capture, processing, and transportation of animals. The intensity of these impacts varies by individual and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality to individuals from this impact is infrequent but does occur in one half to one percent of wild horses captured in a given gather. Other impacts to individual wild horses include separation of members of individual bands of wild horses and removal of animals from the population.

Indirect impacts can occur to wild horses after the initial stress event, and may include increased social displacement, or increased conflict between animals. These impacts are known to occur intermittently during wild horse gather operations. Traumatic injuries may occur, and typically involve biting and/or kicking bruises, which don't break the skin. The occurrence of spontaneous abortion events among mares following capture is very rare.

Mares treated with fertility control would be studied as part of BLM's ongoing fertility control research.

Mares receiving the initial fertility control inoculation would experience slightly increased levels of stress from additional handling while they are being inoculated and freeze-marked. There would be potential additional indirect impacts to animals at the isolated injection site following the administration of the fertility control vaccine. Injection site injury associated with fertility control treatments are extremely rare in treated mares, and may be related to the experience level of those who administer the fertility control. To minimize this risk, only certified applicators would apply fertility control in accordance with the SOPs as outlined in Appendix V.

Mares receiving subsequent fertility control treatment by darting may become more wary of humans due to the darting. Out-year darting (years 2-5) would be accomplished by trained and certified darters to minimize any associated stress to the wild horses. For monitoring purposes, wild horses treated with the initial dose of PZP would be identified by freeze-mark; animals

receiving the initial dose would be targeted for subsequent fertility control treatment by darting, as needed, in order to manage population numbers within the AML range for the SMC over the next 4-5 years.

The post-gather population of about 112 wild horses should be adequate to minimize any potential for inbreeding (i.e. research in domestic horse populations indicates inbreeding potential may increase at very low population levels)³. Baseline genetic diversity data has been collected for some HMAs within the SMC, however, the data is not yet available. During the January 2007 gather, data would be collected as part of the proposed action to establish baseline genetic diversity for the remainder of the HMAs in the SMC. Once baseline genetic diversity has been established, future data collection would allow BLM to determine if the herds show evidence of inbreeding. In order to prevent inbreeding, future management actions could include moving wild horses from genetically similar HMAs into the SMC or moving wild horses from one HMA within the SMC to another HMA. Managing for a higher percentage of studs may also increase genetic interchange and minimize inbreeding potential.

Impacts of Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Under Alternative B, the post-gather population of wild horses and burros would be about 98 and 104, respectively. The post-gather numbers represent the low point of the AML.

Under this alternative, pregnant mares would foal normally over the next 4-5 year period. Based on a normal projected population increase, wild horse numbers are expected to exceed AML in Year 4 following the gather (about 2011):

Table 6. Johnnie and Wheeler Pass/Spring Mountains HMAs/WHTs – Projected Population Size

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Efficiency %	Normal	Normal	Normal	Normal	Normal
Wild Horse Numbers	92	110	132	159	190

Under Alternative B, the potential for inbreeding would be similar to the Proposed Action. Should subsequent monitoring indicate a risk for inbreeding, management actions as described under the proposed action could be considered in the future. Achieving the lower limit of AML for wild horses in the SMC would allow for more rapid recovery of vegetation that has been heavily utilized, especially riparian areas. Additional stress to the wild horses would not occur during subsequent years since fertility control would not be applied.

Impacts of Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Under Alternative C, the post-gather population of wild horses and burros would be about 112 and 121, respectively. The post-gather numbers represent the mid-high point of the AML (the

³ Linda Coates-Markle, personal communication.

same as the Proposed Action). However, under Alternative C, 20% of the studs targeted for release post-gather would be gelded at a BLM facility before being returned to the range.

Normal foaling would be expected in the balance of the adult breeding population. Like Alternative B, under Alternative C the projected wild horse numbers would be expected to exceed the current AML in Year 4 following the gather (or about 2011).

Table 7. Johnnie and Wheeler Pass/Spring Mountains HMAs/WHTs – Projected Population Size

	Year 1	Year 2	Year 3	Year 4	Year 5
Efficiency %	Normal	Normal	Normal	Normal	Normal
Breeding Population	84	101	121	145	174
Geldings	17	17	17	17	17
Total Population	101	118	138	162	191

Remaining impacts associated with gathering to the mid-high point AML are expected to be similar to the Proposed Action, except that fertility control would not be applied. Rather, a portion of the population would be managed as geldings which may result in different individual and group social behavior than occurs presently. Reintroducing geldings into the herd following a 4-6 week stay at a BLM holding facility has potential to introduce strangles or other infectious diseases or parasites into the on-the-range herd. To minimize this risk, geldings would be held for about 5-7 days in a temporary corral to ensure they are disease free before being released.

Impacts of Alternative D: No Action Alternative (Defer Population Control)

Under this alternative, no wild horses or burros would be removed at this time, nor would fertility control treatment be implemented. As a result, wild horses and burros would not be subject to any individual direct or indirect impacts described in the Proposed Action as a result of a gather operation. Following foaling in 2007, wild horse and burro populations would be expected to grow to about 449 wild horses and 1080 wild burros. Projected population increases would result in minimal potential for inbreeding over the long-term, but would be expected to result in further deterioration of the range, and eventually lead to long-term impacts to both the health of the rangeland and the wild horse and burro herds. Competition for the available forage and water resources would continue to increase as growing numbers of wild horses and burros compete for the available forage and water resources. Lactating mares, foals, and older animals would be affected most severely. Social stress would also be expected to increase among animals as they fight to protect their position at scarce forage and water sources. Potential for injuries to all age classes of animals would be expected to increase.

Areas closest to the water would experience severe utilization and degradation. Over time, the animals would also deteriorate in condition as a result of declining forage and increasing distances traveled to and from water to find forage. Many wild horses and burros, especially mares and jennies with foals, would be put at risk through the following summer due to a lack of forage and water, or would be expected to move outside the HMA boundaries in search of food and water, potentially risking injury/death of animals and the public they may encounter on busy highways.

Wilderness and Wilderness Study Areas

Affected Environment

La Madre Mountain Wilderness is characterized by a rugged complex of canyons, ridges and mountain peaks. La Madre Mountain dominates this wilderness with spectacular cliffs and steep canyons occurring on its southeast flanks. Elevations range from 3,600 feet in Brownstone Basin to 9,600 feet at La Madre Mountain. The large variation in elevation provides for a variety of plant communities, ranging from South Mojave Desert shrub, to juniper-pinyon woodland, to subalpine communities of white fir and ponderosa pine.

Rainbow Mountain Wilderness is characterized by vertical red and buff sandstone cliffs, capped by limestone in some areas that are deeply incised by narrow, twisting and heavily vegetated canyons. Elevations range from 4,400 feet in the canyon bottoms to 7,000 feet at the top of the escarpment. Rocky outcrops with pockets of ponderosa pine, pinyon pine and juniper can be found. Willow, ash and hackberry cover canyon bottoms. The area's unique geology and microclimates support endemic plant communities.

The Mount Sterling Wilderness Study Area (WSA) is characterized by a northwest-southeast trending ridge, steep on the southwest-facing slopes. The ridgeline is rocky and heavily dissected into numerous peaks and canyons. A central valley separates the main ridge from a second peak complex centered around Wheeler Peak in the northeast corner of the WSA. The north-central lobe of the WSA consists of a bajada. Elevations range from 4,800 feet on the bajada to the 9,138 foot Wheeler Peak. The WSA is made up of limestone and dolomite with a broad band of quartzite running the length of the southwest face of the ridge. Most of the WSA is heavily vegetated with juniper and pinyon. Ponderosa pine and white fir are found at higher elevations, primarily on the east face of the ridge.

Environmental Consequences

Impacts of Alternative A: Proposed Action -- Remove Excess Animals (Mid-High Point AML); Apply One-Year Fertility Control with Subsequent Treatments via Darting, As Needed

The 2002 Clark County Conservation of Public Land and Natural Resources Act requires that each wilderness area designated under the Act, subject to valid existing rights, shall be administered in accordance with the Wilderness Act. The Wilderness Act directs that wilderness areas be managed to provide for their protection, the preservation of their natural conditions, and the preservation of their wilderness character. Wild horse and burro management within wilderness is subject to the requirements of the Wilderness Act. Herd numbers and management techniques must not degrade and must be compatible with preservation of the area's wilderness character.

FLPMA requires BLM to manage WSAs in a manner so as not to impair their suitability for preservation as wilderness. This is referred to as the non-impairment mandate. Under the

Interim Management Plan (IMP) wild horse and burro populations must be managed at appropriate management levels to ensure a thriving natural ecological balance.

This Alternative would allow for wilderness and wilderness study areas to be managed as mandated and required. During gather operations, the helicopter may fly over portions of the wilderness or WSA looking for wild horses and burros. These areas will be avoided for trap construction and landing of the helicopter. Flying in these areas will be minimized to ensure that wilderness qualities are not impaired.

Fertility control darting in years 2-5 would be accomplished in a manner that would not negatively impact wilderness or WSA characteristics, and would be completed outside wilderness or WSA boundaries.

Impacts of Alternative B: Remove Excess Animals (Low Point AML) Without Fertility Control

Implementation of Alternative B would be the same as the Proposed Action, with the exception that initial one-year fertility control and subsequent darting would not be implemented under this alternative.

Impacts of Alternative C: Remove Excess Animals (Mid-High Point AML); Manage 20% of the Adult Breeding Population as Geldings

Implementation of Alternative C would be the same as the Proposed Action, with the exception that 20% of the adult population would be managed as geldings. This may result in some movement of wild horses outside traditional areas, as stallions are unlikely to allow geldings to join their bands.

Impacts of Alternative D: No Action Alternative (Defer Population Control)

Under the No Action Alternative, wild horse and burro populations would continue to exceed the productive capability of the SMC; vegetation in riparian and uplands would continue to receive heavy to excessive utilization. This level of use would be expected to detract from the aesthetic values derived from wilderness or WSA characteristics.

Cumulative Impacts

The National Environmental Policy Act (NEPA) regulations define cumulative impacts as impacts on the environment that result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

According to the 1994 BLM *Guidelines for Assessing and Documenting Cumulative Impacts*, the cumulative analysis should be focused on those issues and resource values identified during scoping that are of major importance. Accordingly, the issues of major importance that are

analyzed are maintaining rangeland health and proper management of wild horses and burros within the established boundaries of an HMA.

Past

Herd Areas were identified in 1971 as areas occupied by wild horses and burros. The HMAs or Territories were established in the 1980s through the land use planning process as areas where wild horse and burro management was an approved multiple-use. The BLM also moved to long range planning with the development of Resource Management Plans and Grazing Environmental Impact Statements.

Gathering of the SMC on a regular basis has never happened and approximately 554 wild horse and 899 burros have been removed for the SMC. Numerous emergency and nuisance gathers have occurred over the years. The most recent nuisance and emergency gather occurred in February 2006 in the Red Rock HMA; prior to this an emergency gather was completed in 2002 due to drought conditions within the SMC.

Present

Today the SMC has an estimated population of 374 wild horses and 900 burros. Current BLM policy is to removal excess animals as soon as possible. Program goals have expanded beyond establishing a “*thriving natural ecological balance*” (by setting appropriate management level (AML)) for individual herds, to include achieving and maintaining healthy, viable, vigorous, and stable populations.

Current mandates prohibit the destruction of healthy animals that are removed or deemed to be excess. Only sick, lame, or dangerous animals can be euthanized, and destruction is no longer used as a population control method. A recent amendment to the Wild Free-Roaming Horses and Burros Act allows the sale of excess wild horses and burros that are over 10 years in age or have been offered unsuccessfully for adoption three times. Some of the animals removed as a result of the proposed action could be over age 10 and eligible for sale under the new authority.

Public interest in the welfare and management of wild horses and burros is currently higher than it has ever been. Many different personal values pertaining to wild horse and burro management form current perceptions. Wild horses and burros maybe viewed as nuisances or as living symbols of the pioneer spirit.

The focus of wild horse and burro management has also expanded to place more emphasis on achieving rangeland health as measured through the RAC Standards. Mojave Southern Great Basin Resource Advisory Councils (RAC) developed standards and guidelines for rangeland health from the current basis for managing wild horses and burros within the Las Vegas District.

The Proposed Action (Alternative A) and the other action alternatives (Alternatives B and C) considered in this environmental assessment would result in achieving the AML for wild horses and burros in the short term. Implementation of the Proposed Action would also be expected to slow wild horse population growth through the application of fertility control, thereby extending the period of time until another gather to remove excess animals would be needed. These actions would result in fewer gathers of the horse population over the long-term. Reduced handling and

stress as a result of capture and handling operations would benefit both individual animals and the social structure of the horse population. By achieving AML, competition between wild horses and burros and other users for vegetation and water resources would be reduced over the current level. Direct improvement in vegetation condition would be expected, which would benefit both wildlife and wild horse and burro populations within the SMC over the short term.

Over the long term, continuing to maintain wild horse and burro populations within the AML range would further benefit all users and the resources they depend upon for forage and water. While the potential for inbreeding could be a possibility in small or isolated wild horse populations, no data is currently available to determine whether or not the SMC horses or burros are at risk for inbreeding. Under Alternatives A-C, blood samples would be collected to establish baseline genetic diversity (inbreeding potential). Should the data indicate a risk of inbreeding, future actions such as increasing the stud/mare ratio to encourage genetic interchange, or introducing 2-3 mares every generation from similar herds could be considered. Blood sampling data would also help BLM to identify any unique traits a herd may have in order to identify similar wild horse herds which could be considered for introduction of mares into SMC herds, if needed, to reduce risk of inbreeding.

AML for wild horses and burros would not be achieved over the short term with implementation of the No Action Alternative (Alternative D - Defer Population Control). An opportunity to implement fertility control to slow annual wild horse population growth would be foregone. Population numbers would continue to exceed AML, and competition between wild horses and burros and other users for vegetation and water resources would increase. Vegetation conditions would continue to deteriorate and individual horses and burros would further decline in body condition, placing some animals at risk for death by starvation. An opportunity to establish baseline genetic diversity (inbreeding potential) would also be foregone.

Reasonably Foreseeable Actions

While there is no anticipation for amendments to the Wild Free-Roaming Horses and Burros Act that would change the way wild horses and burros could be managed on the public lands, the Act has been amended three times since 1971. Therefore, there is potential for further amendments to the Act as a reasonably foreseeable future action.

Under the Proposed Action the estimated growth rate is anticipated to reach the high limit of AML in about 2013 and another gather would be necessary, it is projected that approximately 40-50 wild horses would be proposed for gather at that time. Based on the projected growth rate of the burro the high limit of AML will be reach in about 2008 when approximately 50-60 burros would be proposed to be gathered. Under Alternative B the high limit of AML for wild horses would be reach in about 2011 when approximately 100-110 wild horses would be proposed for gather, and burros would reach the high limit of AML in about 2008 when approximately 40-50 burros would be proposed to gather. Alternative C would be the same as the Proposed Action. Under No Action Alternative the populations of wild horses and burros would continue to grow at about 20% per year until a gather was proposed.

Any future proposed projects within the SMC would be analyzed in an appropriate environmental document following site specific planning. Future project planning would also include public involvement.

Summary of Past, Present, and Reasonably Foreseeable Future Actions

The area affected by the Proposed Action (Alternative A) and Alternatives B-C is the area in and around the SMC including the Red Rock HMA/WHT, Johnnie HMA/WHT, Wheeler Pass HMA, and Spring Mountain WHT. Please refer to Figure 1 which displays a map of affected area. Past, proposed and reasonably foreseeable actions that may impact the SMC wild horse and burro herds could include past and future wild horse gathers, application of initial fertility control and subsequent darting as need in out-years. Over time, as wild horse and burro population levels are maintained within the AML range, a thriving natural ecological balance would also be achieved and maintained.

The BLM would continue to conduct the necessary monitoring to periodically evaluate the effects of grazing use by wild horses and burros and wildlife, and determine if progress is being made in the attainment of Standards for Rangeland Health. Monitoring would be in accordance with BLM policy as outlined in the *Nevada Rangeland Monitoring Handbook* and other BLM technical references. However, cumulative beneficial effects from the Proposed Action and Alternatives B-C are expected, and would include continued improvement of the range condition and riparian-wetland condition, which in turn positively impact wildlife, wild horse and burro populations, and forage availability and quality is maintained and improved. Water quality and riparian habitat would also continually improve.

Under the No Action Alternative, wild horse and burro populations would continue to increase and cause impacts to the wildlife habitat from the periodic excessive use by wild horses and burros at riparian areas and in rangeland vegetation. Direct cumulative impacts of the No Action Alternative, coupled with the impacts from past, present, and reasonably foreseeable actions, would preclude any improvement to the health of vegetative communities and the ecological condition of range as a whole. As a result, the No Action Alternative coupled with many of the past, present, and reasonably foreseeable actions would hinder success in attaining RMP objectives and Standards for Rangeland Health.

Mitigation Measures and Suggested Monitoring

The SMC would continue to be monitored post-gather. Data would be collected which would assist BLM and USFS in determining whether existing AMLs are appropriate or need future adjustment (either up or down). Data collected would include observations of animal health and condition, climate (precipitation), grazing utilization and animal distribution, population census, range condition and trend, among other items.

Proven mitigation and monitoring are incorporated into the proposed action through standard operating procedures, which have been developed over time. These SOPs (Appendix II and V) represent the "best methods" for reducing impacts associated with gathering, handling, transporting, collecting herd data and applying fertility control. Additional mitigation regarding wild horse and burro gathers within desert Tortoise habitat will be adhered to.

Public Involvement, Consultation and Coordination

Public hearings are held annually on a state-wide basis regarding the use of helicopters and motorized vehicles to capture wild horses or burros. During these meetings, the public is given the opportunity to present new information and to voice any concerns regarding the use of these methods to capture wild horses or burros. The Nevada State BLM Office held a meeting on May 18th, 2006; only one comment was received during this hearing from the National Mustang Association (NMA) supporting the use of motorized vehicles in the management of wild horses and burros. NMA commended BLM in Utah and Nevada for the professional manner in which helicopters are used.

Public Scoping

The following individuals, groups and agencies were notified of the proposed action by letter dated July 3, 2006, requesting any concerns, data or information BLM should consider in preparing the preliminary EA:

Mary Sue Kunz	Robert Wiemer	Charlie Day
Conni Canaday	Ed Dodrill	Tedi Gable
Judy Wrangler	Sandee Stoeckle	Dee Ellen Grubbs
Janel Brookshire	Jesse Paxton	John M. Martin Jr.
Christine Brehm	Micki Jay	Elnoma Reeves
Janet Byer	Julie Spear	Norman & Barbara Wolin
Karen R. Deckert	Shari Warren	Rick & Wendy Cicerelle
Pamela Vilkin	Pam Passman	Budd-Falen Law Offices
Ellis Greene	Maria J. Duvall	Town of Pahrump Public Lands
Danny Riddle	Laurie Howard	Assemblywoman Kirkpatrick
Craig Bernard	Chris Burhoe	Goodsprings Town Council
Maggie Frederici	Grace Robman	Heidi Abrams & Joie Gomez
Tommy Kurse	Carol Hunt	Barbara Hampton-Bash
Andrew Mebmann	Bruce Julander	Linda McCollum
Brian Haynes	Jerry Reynoldson	Red Rock Country Club

National Wild Horse Association
Wild Horse Organized Assistance
US Forest Service Humboldt-Toiyabe National Forest
Nevada Department of Wildlife
State of Nevada Commission for the Preservation of Wild Horses
State of Nevada Department of Administration
Wild Horse Sanctuary

Comments were received from 23 individuals, groups and agencies in response to the scoping letter. The Las Vegas Field Office also conducted scoping meetings with the Nevada Department of Wildlife (NDOW) and the USFS. Many of the comments contained overlapping concerns and have been consolidated for BLM's response into 11 areas of concern as described below. For a more detailed summary of the comments received during scoping and how BLM

used the comments in preparing the preliminary environmental assessment, refer to Appendix VIII.

1. Removal of excess wild horses and burros to the lower limit of the appropriate management level is necessary to achieve a thriving natural ecological balance.

This comment is addressed in Issue 1 (refer to EA, page 6) and the Purpose and Need (EA, pages 4-5). Prior to removing excess wild horses from the range, BLM prepares an environmental assessment (EA) to analyze the impacts associated with the proposed gather as required by the 1969 National Environmental Policy Act (NEPA). Before preparing the EA, BLM determines if excess animals are present. Excess animals are defined as those which must be removed from an area in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship with livestock, wildlife, vegetation and other uses in that area. Once excess animals are determined to be present, BLM is required to remove them (refer to Section 3 (b) (2) of the 1971 Wild Free-Roaming Horses and Burros Act and 43 Code of Federal Regulations (CFR) 4720.1).

To determine if excess animals are present and that removal is necessary to restore the range to a thriving natural ecological balance and prevent a deterioration of the range, BLM monitors grazing utilization, trend in range condition, actual use, population data, and other factors (refer to 117 IBLA 4). Relative to the Spring Mountains Herd Management Complex, the Las Vegas Field Office has conducted an in-depth environmental analysis of all available monitoring information and determined that excess animals are present and require removal in order to prevent a deterioration of the range. This determination is based, in part, on the following factors:

- The appropriate management level (AML) of wild horses and burros for the Spring Mountains Complex is 147 wild horses and 146 burros while the current estimated population of wild horses and burros, is 344 and 660, respectively, based on census data collected in 2005 and 2006.
- This data indicates that the wild horse population is 2.34 times the AML, while the burro population is 4.52 times the AML.
- Additionally, resource monitoring data indicates that utilization of key forage and browse species is heavy to excessive and that wild horses and burros are turning to less preferred plants, including those which contain tannins which are toxic to equines when consumed in large amounts.

2. The use of and impacts from contraception (fertility control) should be considered. Also, what about alternatives including additional water development or managing populations through fertility control alone (no removals) as they do on Assateague Island? What about No Action/No Removal at this time?

The use of fertility control for mares released back to the range following the gather is considered in detail in the analysis (refer to the EA, page 10 and pages 21-25 for additional information).

Additional water development was not considered in detail in this analysis (refer to the EA, page 12). Managing the current wild horse and burro populations through fertility control, with no removals of excess animals at this time, was not considered in detail in this analysis (refer to EA, page 11). Fertility control application would allow pregnant mares to foal normally in year one following treatment; as a result, numbers of wild horses would exceed AML throughout this period of time, contributing to further deterioration of the range. Fertility control is not currently approved for use in burros; additionally, there is a high adoption demand for burros.

A No Action/No Removal alternative was considered in detail (refer to the EA, page 10 and pages 21-25).

3. Showcasing our local animals should be an intended part of any local gather.

Adoptions of excess animals by qualified individuals who can provide good homes to the animals is of paramount importance to BLM. As a result, any excess animals removed from the range will be made available for adoption at BLM facilities. BLM is also asking anyone who meets BLM's adoption and facilities requirements to mail a completed adoption application to the BLM Las Vegas Field Office, Attn: Jerrie Bertola. Depending on the level of qualified adopter interest we receive, BLM would like to work collaboratively with non-profit groups and other interested individuals to adopt SMC wild horses and burros.

4. BLM's wild horse and burro program statistics differ significantly from year to year. Of special concern are the changes in AMLs and population statistics reported for the Johnnie, Muddy Mountains, and Red Rock HMAs.

In 1984, the federal court ruled that setting and adjusting AML should be based on monitoring and in-depth analysis, not based on maintaining specific numbers that existed at a given point in time (refer to *Dahl v. Clark*, CV-R-124-ECR). Since that time, BLM has established AML based on an ongoing program of monitoring and analysis. BLM established interim AMLs for the Red Rock, Johnnie and Wheeler Pass HMAs in the 1998 Las Vegas and 2005 Red Rock Canyon Resource Management Plans. Based on subsequent in-depth analysis of monitoring data and decision issuance, the BLM LVFO re-established AMLs for the three HMAs in 2004 and 2006. Refer to the EA, pages 21-22, for more information.

Population statistics may also vary from year to year. BLM Nevada conducts population census for the 102 herd management areas we manage approximately every three years; the population estimate derived from the census is then reported in the Bureau's annual statistical report. In the interim (between census flights), annual population growth is estimated based on past trends. From time to time, populations will grow more rapidly or more slowly than expected. Population census a minimum of every third year allows us to detect those changes and to update our population estimates in the statistical report.

5. Considering that nearly 1,100 animals have survived challenging environmental conditions, BLM's established AML of 301 seems very low. The land appears quite capable of supporting these higher numbers.

Refer to BLM's response to Comment 1 above. It is important to achieve the appropriate management level of wild horses and burros on the range to assure that Nevada rangelands are healthy and diverse and that a balance is achieved between the land's ability to produce forage and the demand for that forage by wildlife, livestock and wild horses and burros. BLM has a responsibility under the 1971 Wild and Free-Roaming Horses and Burros Act to protect the range from deterioration by overpopulation of wild horses and burros and to ensure a thriving natural ecological balance and multiple-use relationship.

6. BLM is not providing the proper amounts of personnel to effectively navigate their workload. The adoption program is not keeping pace with the numbers of wild horses and burros removed from the range and the cost for gathering and holding additional numbers is a huge

taxpayer expense. Also of concern is that excess wild horses and burros may end up in slaughterhouses.

The Bureau of Land Management's staffing and budget are outside the scope of this analysis. Staffing and budget are administrative actions internal to BLM. The scope of this environmental analysis is to evaluate the site-specific impacts associated with removal of excess wild horses and burros from the affected HMAs as required by Section 3 (b) (2) of the 1971 Wild Free-Roaming Horses and Burros Act, as amended. Also refer to BLM's response to Comment 3 above.

The Bureau of Land Management does not sell any wild horses or burros to slaughterhouses or to "killer agents." In enforcing the 1971 Wild Free-Roaming Horses and Burros Act, the BLM continues to work with law-enforcement authorities in investigating and prosecuting all who violate this landmark law. As an agency that administers the public lands for multiple uses, the BLM -- under the authority of the 1971 law -- manages and protects wild horses and burros as living symbols of the Western spirit. The Bureau also ensures that population levels are in balance with rangeland resources and other uses of the public lands.

To achieve this balance, the BLM must remove thousands of animals from the range each year to control the size of herds, which have virtually no predators and can double in population every four years. The current free-roaming population of wild horses and burros on BLM-managed lands is about 31,000, which exceeds by some 3,000 the number determined by the Bureau to be the appropriate management level. Off the range, there are about 26,000 wild horses and burros cared for in either short-term (corral) or long-term (pasture) facilities. All animals in short- or long-term holding are protected by the BLM under the 1971 law.

After wild horses and burros are removed from the range, the Bureau works to place as many animals as possible into private care through adoption or sales. Since 1973, the BLM has placed more than 213,000 horses and burros into private ownership through adoption, a process in which a citizen may receive the title of ownership to an animal after one year. Under a December 2004 amendment to the 1971 wild horse law, animals over 10 years old -- as well as those passed over for adoption at least three times -- are eligible for sale, in which the title of ownership passes immediately from the Federal government to the buyer. Since the amendment took effect, the BLM has sold nearly 2,000 horses and burros. The BLM encourages those who are interested in providing good homes to wild horses or burros to visit the agency's Website (www.blm.gov) for information about adoptions and sales.

7. BLM gathers/removes more animals than they plan or announce.

BLM's proposed gather and removal numbers are based on population census and distribution mapping flights following procedures recommended by the National Academy of Sciences (1980). These procedures estimate the number of horses and burros present within the affected HMAs. Refer to the Journal of Wildlife management (1991) which verifies the results for more information.

BLM Nevada is also currently involved with the United States Geological Survey – Biological Research Division's census research project. The goal of this effort is to further refine population estimation techniques.

Because many of Nevada's HMAs are unfenced and contiguous to one another, horses and burros can, and do, move between the areas resulting in greater or fewer numbers at different times. Additionally, BLM's population statistics represent the estimated number of wild horses and burros

present as of February 28th each year; the current year's foal crop is not counted in those estimates. However, the current year's foal crop is counted during gather operations as number removed. Also refer to BLM's response to Comment 4 above.

8. **Since BLM has begun managing our wild horses and burros, they have zeroed out 102 HMAs, one-third of our legally established and protected wild horse and burro areas. They zero out these herd areas citing the “multiple-use” clause in PL 92-195 but what I haven't seen is the first mandate of Congress – to manage areas devoted principally but not exclusively to their welfare. This theme is the widely held belief that BLM is “principally devoting” our HMA rangelands to the grazing preferences of livestock.**

BLM is required to manage wild horses and burros where they existed in 1971, provided that the areas can be managed over the long-term to achieve sustainable, healthy populations of animals in balance with the land's ability to produce forage. In 1971, in some cases, animals existed in areas where they could not be managed in a thriving natural ecological balance and multiple-use relationship over the long-term. An example is the checkerboard lands present across much of northern Nevada. In these areas, public lands are intermingled with private lands and often, no practical means exists to protect private lands from use by wild horses and burros. This issue was highlighted by the federal court in 1978 (*Roaring Springs v. Andrus*, 77-330) in which the court ruled that BLM is obligated to remove wild horses and burros off private land upon landowner request.

Nevada designated about 19.5 million acres as herd areas (the geographic area identified as having been used by a herd as its habitat in 1971 per 43 CFR 4700.0-5 (d)), and through land use planning has designated nearly 16 million acres for long-term management of wild horses and burros as herd management areas (81%). The regulations provide for designating herd management areas as wild horse or burro ranges to be managed principally, but not necessarily exclusively, for wild horse or burro herds (43 CFR 4710.3-2). Nevada has two designated horse or burro ranges: the Nevada Wild Horse Range (Nellis) and the Marietta Burro Range under this authority.

Remaining Nevada herd management areas are managed in accordance with Section 3 (a) of the 1971 Wild Free-Roaming Horses and Burros Act which requires BLM to manage wild-free roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands, at the minimum feasible level and in consultation with State wildlife agencies in order to protect the natural ecological balance of all wildlife species which inhabit such lands.

9. **Managing at low population levels puts our wild horses in jeopardy of a long range loss of genetic viability and raises the chance of inbreeding.**

The potential for inbreeding is discussed in the EA, pages 21-25.

10. **During a round up, these terrified horses are run hard over rough terrain, often with temperatures in excess of 100 degrees. This leaves them open to injury, illness and even death.**

Relative to concerns about the use of helicopters and motorized vehicles in the capture of wild horses, the 1971 Wild Free-Roaming Horses and Burros Act, as amended, provides BLM and the USFS with the authority to use helicopters to capture animals and motorized vehicles to transport captured animals. Section 9 of the 1971 Wild and Free-Roaming Horses and Burros Act, as amended (43 CFR 4740.1(b)) requires that a public hearing be held prior to the use of helicopters and motorized vehicles. BLM Nevada's helicopter hearing was held on May 18, 2006.

Prior to the passage of the 1971 Act, mustangers used fixed wing aircraft to roundup wild horses and burros with none of the controls we have today. Since the passage of the 1971 Act, as amended, all capture and handling activities are conducted in accordance with established Standard Operating Procedures (SOPs). The use of helicopters and motorized vehicles has proven to be a safe, effective and practical means for the gather and removal of excess wild horses and burros from the range.

The capture of wild horses by using a helicopter to herd the animals is prohibited during the 6 weeks that precede and the 6 weeks that follow the peak foaling period (BLM Manual 4720.21). The peak foaling period for the majority of Nevada's wild horse herds occurs between March 1 and June 30. BLM Nevada does not conduct helicopter removals of wild horses during this period.

The proposed SMC gather would not occur during the summer when temperatures can exceed 100 degrees fahrenheit. When gathers are conducted during the hot summer months, gather operations are generally limited to the early morning hours when temperatures are cooler. The helicopter is also able to control the animal's movement, as needed, to keep the herd together and moving at a pace which prevents them from becoming over-heated.

11. The long term well being of wild horses and burros should be considered before any action is taken.

The long-term well being of wild horses and burros is dependent on achieving and maintaining healthy range and riparian habitats. Currently, the overpopulation of wild horses and burros is contributing to excessive utilization of key forage and browse species; horses and burros are turning to less preferred forage species, including plants which contain tannins that are toxic to equines when consumed in large amounts. Without removal of excess animals in January 2007, wild horse and burro populations would be expected to grow to about 410 wild horses and 792 wild burros following the 2007 foaling season. The expected population increase would be expected to result in further deterioration of the range, and increased risk to long-term rangeland health and wild horse herd health. For more information, refer to the EA, page 21-25.

Public Review and Comment of the Preliminary EA

In addition to public scoping (July 2006) as outlined above, the LVFO made the preliminary EA available for a 30 day public review and comment period beginning November 7, 2006. In addition, the LVFO sponsored two public meetings (November 14 and 16) to explain the need for the action, answer questions and take public comments. The LVFO also sponsored two range tours (November 15 and 18) to provide the public with an opportunity to view range and animal conditions and answer questions. The preliminary EA was also posted at www.nv.blm.gov/vegas and www.fs.fed.us/r4/htnf. The following individuals, groups and agencies received a copy of the preliminary EA.

Conni Canaday	Bob & Janet Byer	Tedi Gable
Karen Deckert	Marty Teller	Keith Rogers
Trudy Lawrence	John Morgan	Debbie Hines
Judith Leavitt	Maggie Brown	Lori Owens
Cindy MacDonald	Paula Callahan	Barbara Warner
Billie Young	Connie Brady	Mr. & Mrs. Schulter
Barbara Cunningham	Mikki J. Bailey	Harlan & Marie Lane
Shari Warren	Flora Woratschek	Melody Hendry
Janet Rhea Little	Christine Brehm	Mary Blake
Red Rock Country Club	Elnoma Reeves	
National Wild Horse Association		
Wild Horse Organized Assistance		
US Forest Service Humboldt-Toiyabe National Forest		
Nevada Department of Wildlife		
State of Nevada Commission for the Preservation of Wild Horses		
State of Nevada Department of Administration		

Comments were received from 54 individuals, groups and agencies in response to review of the preliminary EA. For a detailed summary of the comments received following review of the preliminary EA and how BLM used the comments in finalizing the environmental assessment, refer to Appendix IX.

List of Preparers

Jerrie Bertola	Wild Horse and Burro Specialist, LVFO
Susie Stokke	Wild Horse and Burro Program Lead, BLM Nevada
Christina Lund	Vegetation, LVFO
Marc Maynard	Wildlife/T&E/Special Status Species, LVFO
Susanne Rowe	Archaeology and Cultural Resources, LVFO
Michael N. Johnson	Planning and Environmental Coordination, LVFO
Karla D. Norris	Assistant Field Manager, Recreation and Renewable Resources, LVFO
Jeff Steinmetz	Planning and Environmental Coordination, LVFO

References

- Field Trial Plan Wild Horse Fertility Control, October 2003, Francis Singer et al.

Appendix I

Summary of Relevant Management Decision/Guidance
Spring Mountains National Recreation Area General Management Plan
Record of Decision dated October 1, 1996

SMNRA Wide, Objectives:

- (0.13) Forage utilization will be 30% or less on any area in the Spring Mountains NRA.
- (0.15) Manage wild horses and burros in a thriving ecological balance with long-term ecosystem health.
- (0.16) Appropriate management levels (population size) for wild horses and burros will be based upon limiting factors: available water and forage; area sensitivity; and animal condition. Initial levels will be based upon 7% of available water.

SMNRA Wide, Desired Future Condition:

- Wild horses and burros have been treated humanely during all management activities. Wild horse and burro populations are at appropriate management levels that are sustainable and in balance with the long-term ecosystem health of the Spring Mountains (thriving ecological balance). Wild horses and burros have sufficient habitat to support viable populations.
- Methods such as sex selective gathers, birth control, gelding of young stallions, and spaying the mares/jennies, are being employed to sustain appropriate management levels and reduce population growth. The populations exhibit sustainable sex ratios and age distributions. Selection is used to promote historic color and confirmation traits to increase adoptability.
- The Wild Horse and Burro Territory boundaries are as displayed (see Map 3). Wild horses and burros are excluded from areas outside their territory, riparian areas, highways, and other sensitive areas or areas where their presence poses a threat to public safety or themselves.

SMNRA Wide, Standards and Guidelines:

- (0.98) Except where necessary for humanitarian reasons (injured or diseased animals) or genetic defects (such as club-foot, sway-back), wild horses and burros removed in a gather will not be destroyed. Animals will either be placed in the adoption program or returned to a territory. (Standard)
- (0.99) Allow humanitarian measures (supplemental water and/or feed) for wild horse and burro populations only as an interim step prior to removal. (Standard)
- (0.100) Unless under emergency circumstances, or wild horse and burro population exceeds Appropriate Management Level by more than 30%, return a portion of each age class (with representatives of each sex) to the territory to maintain sustainable age distribution and sex ratio. (Guideline)
- (0.101) When possible (without exceeding Appropriate Management Level), allow wild horses and burros from territories outside the Spring Range to be placed in the Spring Mountain, Red Rock, and Johnnie Territories to increase genetic diversity of the herds. Wild horses brought into these territories need to be from a similar climate. (Guideline)
- (0.102) Once Appropriate Management Level for wild horses and burros is achieved, conduct gathers when population exceeds Appropriate Management Level by 15%. If possible, reduce population size to 20% below Appropriate Management Level. (Guideline)

Management Area 11, Objectives:

- (11.11) Keep wild horses from Kyle and Lee Canyon.
- (11.12) Lower Deer Creek is removed from the Spring Mountains Wild Horse and Burro Territory due to danger posed by this herd to traffic on Kyle and Lee Canyon Highways.

Appropriate Management Level for wild horses and burros in Cold Creek is: horses, 26; burros, 0 (based upon 1992 range analysis and estimated population).

Management Area 13, Objectives:

- (13.10) Appropriate Management Level for wild horses and burros in Wheeler Pass: horses, 11; burros, 0 (based upon 7% of available water).

Appropriate Management Level for wild horses and burros in Wheeler/Wallace: horses, 10; burros, 21 (based upon 7% of available water).

Appropriate Management Level for wild horses and burros in Red Rock Territory: horses, 50; burros, 50 (based upon Bureau of Land Management recommendations and the best available information).

Management Area 14, Objectives:

- (14.8) Initial Appropriate Management Level for Johnnie Territory: horses, 50; burros, 75 (based upon Bureau of Land Management recommendations and the best available information).

Management Area 14, Desired Future Condition:

- Wild horse and burro populations are at the appropriate management level to sustain ecosystem health. The populations are targeted for aggressive population control methods. Wild horses and burros have adoptable characteristics that are being passed on to their offspring.

Proposed and Probable Management Practices:

- (36) To achieve AML, conduct gathers of wild horses and burros (at a minimum) every five years, and use population control methods such as birth control, gelding of young stallions, spaying mares/jennies, and sex selective gathers.

APPENDIX II STANDARD OPERATING PROCEDURES

Gathers would be conducted by utilizing contractors from the Wild Horse and Burro Gathers-Western States Contract, or BLM personnel. The following procedures for gathering and handling wild horses and burros would apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations will be conducted in conformance with the *Wild Horse and Burro Aviation Management Handbook* (March 2000).

Prior to any gathering operation, the BLM will provide for a pre-capture evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with wilderness boundaries, the location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations. If it is determined that capture operations necessitate the services of a veterinarian, one would be obtained before the capture would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the capture and handling of animals to ensure their health and welfare is protected.

Trap sites and temporary holding sites will be located to reduce the likelihood of undue injury and stress to the animals, and to minimize potential damage to the natural resources of the area. These sites would be located on or near existing roads.

The primary capture methods used in the performance of gather operations include:

1. Helicopter Drive Trapping. This capture method involves utilizing a helicopter to herd wild horses and burros into a temporary trap.
2. Helicopter Assisted Roping. This capture method involves utilizing a helicopter to herd wild horses or burros to ropers.
3. Bait Trapping. This capture method involves utilizing bait (water or feed) to lure wild horses and burros into a temporary trap.

The following procedures and stipulations will be followed to ensure the welfare, safety and humane treatment of wild horses and burros in accordance with the provisions of 43 CFR 4700.

A. Capture Methods used in the Performance of Gather Contract Operations

1. The primary concern of the contractor is the safe and humane handling of all animals captured. All capture attempts shall incorporate the following:

All trap and holding facilities locations must be approved by the Contracting Officer's Representative (COR) and/or the Project Inspector (PI) prior to construction. The Contractor may also be required to change or move trap locations as determined by the COR/PI. All traps and holding facilities not located on public land must have prior written approval of the landowner.

2. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.
3. All traps, wings, and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:
 - a. Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.
 - b. All loading chute sides shall be a minimum of 6 feet high and shall be fully covered, plywood, metal without holes.
 - c. All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for horses, and 5 feet high for burros, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for burros and 1 foot to 6 feet for horses. The location of the government furnished portable fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the COR/PI.
 - d. All crowding pens including the gates leading to the runways shall be covered with a material which prevents the animals from seeing out (plywood, burlap, plastic snow fence, etc.) and shall be covered a minimum of 1 foot to 5 feet above ground level for burros and 2 feet to 6 feet for horses
 - e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking gates.
4. No modification of existing fences will be made without authorization from the COR/PI. The Contractor shall be responsible for restoration of any fence modification which he has made.
5. When dust conditions occur within or adjacent to the trap or holding facility, the Contractor shall be required to wet down the ground with water.
6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and injured animals, and estrays from the other animals. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age, sex, or other

necessary procedures. In these instances, a portable restraining chute may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering requires that animals be released back into the capture area(s). In areas requiring one or more satellite traps, and where a centralized holding facility is utilized, the contractor may be required to provide additional holding pens to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking and later segregation will be at the discretion of the COR.

7. The Contractor shall provide animals held in the traps and/or holding facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. An animal that is held at a temporary holding facility after 5:00 p.m. and on through the night, is defined as a horse/burro feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.
8. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.
9. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI will determine if injured animals must be destroyed and provide for destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.
10. Animals shall be transported to final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted by the COR/PI for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the COR/PI. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR/PI. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the COR. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours. Animals that are to be released back into the capture area may need to be transported back to the original trap site. This determination will be at the discretion of the COR.

B. CAPTURE METHODS THAT MAY BE USED IN THE PERFORMANCE OF A GATHER

1. Capture attempts may be accomplished by utilizing bait (feed or water) to lure animals into a temporary trap. If the contractor selects this method the following applies:

- a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
 - b. All trigger and/or trip gate devices must be approved by the COR/PI prior to capture of animals.
 - c. Traps shall be checked a minimum of once every 10 hours.
2. Capture attempts may be accomplished by utilizing a helicopter to drive animals into a temporary trap. If the contractor selects this method the following applies:
 - a. A minimum of two saddle-horses shall be immediately available at the trap site to accomplish roping if necessary. Roping shall be done as determined by the COR/PI. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, and orphaned.
3. Capture attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor with the approval of the COR/PI selects this method the following applies:
 - a. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, or orphaned.
 - c. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.

C. USE OF MOTORIZED EQUIPMENT

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the COR/PI with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.
3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities, and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of 6 feet 6 inches from the floor. Single deck tractor-

trailers 40 feet or longer shall have two (2) partition gates providing three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have a minimum 5 foot wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall not be allowed.

4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the COR/PI.
5. Floors of tractor-trailers, stock trailers and loading chutes shall be covered and maintained with wood shavings to prevent the animals from slipping.
6. Animals to be loaded and transported in any trailer shall be as directed by the COR/PI and may include limitations on numbers according to age, size, sex, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers:
 - 11 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
 - 8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
 - 6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
 - 4 square feet per burro foal (.50 linear feet in an 8 foot wide trailer).
7. The COR/PI shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of captured animals. The COR/PI shall provide for any brand and/or inspection services required for the captured animals.
8. If the COR/PI determines that dust conditions are such that the animals could be endangered during transportation, the Contractor will be instructed to adjust speed.

D. SAFETY AND COMMUNICATIONS

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the capture of wild horses and burros utilizing a VHF/FM Transceiver or VHF/FM portable Two-Way radio. If communications are ineffective the government will take steps necessary to protect the welfare of the animals.
 - a. The proper operation, service and maintenance of all contractor furnished property

is the responsibility of the Contractor. The BLM reserves the right to remove from service any contractor personnel or contractor furnished equipment which, in the opinion of the contracting officer or COR/PI violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the Contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the Contracting Officer or his/her representative.

- b. The Contractor shall obtain the necessary FCC licenses for the radio system
 - c. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.
2. Should the contractor choose to utilize a helicopter the following will apply:
- a. The Contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.
 - b. Fueling operations shall not take place within 1,000 feet of animals.

G. SITE CLEARANCES

Personnel working at gather sites will be advised of the illegality of collecting artifacts.

Prior to setting up a trap or temporary holding facility, BLM will conduct all necessary clearances (archaeological, T&E, etc). All proposed site(s) must be inspected by a government archaeologist. Once archaeological clearance has been obtained, the trap or temporary holding facility may be set up. Said clearance shall be arranged for by the COR, PI, or other BLM employees.

Gather sites and temporary holding facilities would not be constructed on wetlands or riparian zones.

H. ANIMAL CHARACTERISTICS AND BEHAVIOR

Releases of wild horses would be near available water. If the area is new to them, a short-term adjustment period may be required while the wild horses become familiar with the new area.

I. PUBLIC PARTICIPATION

Opportunities for public viewing (i.e. media, interested public) of gather operations will be made available to the extent possible, however, the primary consideration will be to protect the health and welfare of the animals being gathered. The public must adhere to guidance from the on site BLM representative. It is BLM policy that the public will not be allowed to come into direct

contact with wild horses or burros being held in BLM facilities. Only authorized BLM personnel, or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at anytime or for any reason during BLM operations.

J. RESPONSIBILITY AND LINES OF COMMUNICATION

Las Vegas Field Office - Contracting Officer's Representative/Project Inspector Jerrie Bertola

The Contracting Officer's Representatives (CORs) and the project inspectors (PIs) have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. The Las Vegas Assistant Field Manager for Recreation and Renewable and the Las Vegas Field Manager will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, State Office, National Program Office, PVC Corral and Ridgecrest Corral offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity, formal public contact and inquiries will be handled through the Assistant Field Manager for Renewable Resources. This individual will be the primary contact and will coordinate the contract with the BLM Corrals to ensure animals are being transported from the capture site in a safe and humane manner and are arriving in good condition.

The contract specifications require humane treatment and care of the animals during removal operations. These specifications are designed to minimize the risk of injury and death during and after capture of the animals. The specifications will be vigorously enforced.

Should the Contractor show negligence and/or not perform according to contract stipulations, he will be issued written instructions, stop work orders, or defaulted.

APPENDIX III
Euthansia Policy

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

October 20, 2005

In Reply Refer To:
4730/4700 (WO-260) P

EMS TRANSMISSION 11/03/2005
Instruction Memorandum No. 2006-023
Expires: 09/30/2007

To: All Field Officials (except Alaska)

From: Assistant Director, Renewable Resources and Planning

Subject: Euthanasia of Wild Horses and Burros

Program Area: Wild Horses and Burros

Purpose: This policy identifies requirements for euthanasia of wild horses and burros.

Policy/Action: A Bureau of Land Management (BLM) authorized officer may authorize the euthanasia of a wild horse or burro in field situations (includes free-roaming horses and burros encountered during gather operations) as well as short- and long-term wild horse and burro holding facilities with any of the following conditions:

- (1) Displays a hopeless prognosis for life;
- (2) suffers from a chronic or incurable disease, injury or serious physical defect; (includes severe tooth loss or wear, severe club feet, and other severe acquired or congenital abnormalities)
- (3) would require continuous treatment for the relief of pain and suffering in a domestic setting;
- (4) is incapable of maintaining a Henneke body condition score greater than two, in its present environment;
- (5) has an acute or chronic injury, physical defect or lameness that would not allow the animal to live and interact with other horses, keep up with its peers or exhibit behaviors which may be considered essential for an acceptable quality of life constantly or for the foreseeable future;
- (6) suffers from an acute or chronic infectious disease where State or Federal animal health officials order the humane destruction of the animal as a disease control measure.

Euthanasia in field situations (includes on-the-range and during gathers):

There are three circumstances where the authority for euthanasia would be applied in a field situation:

(A) If an animal suffers from a condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal. If the animal is euthanized during a gather operation, the authorized officer will describe the animal's condition and report the action using the gather report in the comment section that summarizes gather operations (See attachment 1). If the euthanasia is performed during routine monitoring, the Field Manager will be notified of the incident as soon as practical after returning from the field.

(B) Older wild horses and burros encountered during gather operations should be released if, in the opinion of the authorized officer, the criteria described in 1-6 above for euthanasia do not apply, but the animals would not tolerate the stress of transportation, adoption preparation, or holding and may survive if returned to the range. This may include older animals with significant tooth wear or tooth loss that have a Henneke body condition score greater than two. However, if the authorized officer has inspected the animal's teeth and feels the animal's quality of life will suffer and include health problems due to dental abnormalities, significant tooth wear or tooth loss; the animal should be euthanized as an act of mercy.

(C) If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority to euthanize the animal in a humane manner. The authorized officer will prepare a written statement documenting the action taken and notify the Field Manager and State Office Wild Horse and Burro (WH&B) Program Lead. If available, consultation and advice from a veterinarian is recommended, especially where significant numbers of wild horses or burros are involved.

If, for humane or other reasons, the need for euthanasia of an unusually large number of animals during a gather operation is anticipated, the euthanasia procedures should be identified in the pre-gather planning process. When pre-gather planning identifies an increased likelihood that animals may need to be euthanized, plans should be made for an APHIS veterinarian to visit the gather site and consult with the authorized officer on euthanasia decisions.

In all cases, the final responsibility and decision regarding euthanasia of a wild horse or burro rests solely with the authorized officer (43 CFR 4730). Euthanasia will be carried out following the procedures described in the 4730 manual.

Euthanasia at short-term holding facilities:

Under ideal circumstances horses would not arrive at preparation or other facilities that hold horses for any length of time with conditions that require euthanasia. However, problems can develop during or be exacerbated by handling, transportation or captivity. In these situations the authority for euthanasia would be applied:

(A) If an animal suffers from a traumatic injury or other condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal. A veterinarian should be consulted if possible.

(B) If in the opinion of the authorized officer and a veterinarian, older wild horses and burros in short-term holding facilities cannot tolerate the stress of transportation, adoption preparation, or long-term holding they should be euthanized. However, if the authorized officer has inspected the animal and feels the animal's quality of life will not suffer, and the animal could live a healthy life in long-term holding, the animal should be shipped to a long-term holding facility.

(C) It is recommended that consultation with a veterinarian is obtained prior to euthanasia. If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority to euthanize the animal in a humane manner. Situations where acute suffering of the animal is not involved could include a physical defect or deformity that would adversely impact the quality of life of the animal if placed in the adoption program or on long-term holding. The authorized officer will ensure that there is a report from a veterinarian describing the condition of the animal that was euthanized. These records will be maintained by the holding facility.

If, for humane reasons, the need for the euthanasia of a large number of animals is anticipated, the euthanasia procedures should be identified to the WH&B State Lead or the National Program Office (NPO) when appropriate. A report that summarizes the condition, circumstances and number of animals involved must be obtained from a veterinarian who has examined the animals and sent to the WH&B State Lead and the NPO.

In all cases, final decisions regarding euthanasia of a wild horse or burro rest solely with the authorized officer (43 CFR 4730). Euthanasia will be carried out following the procedures described in the 4750-1 Handbook.

Euthanasia at long-term holding facilities:

This portion of the policy covers additional euthanasia conditions that are related to long-term holding facilities and includes existing facilities and any that may be added in the future.

At long-term holding facilities the authority for euthanasia would be applied:

- (A) If an animal suffers from a traumatic injury or other condition as described in 1-6 above that causes acute pain or suffering and immediate euthanasia would be an act of mercy, the authorized officer has the authority and the obligation to promptly euthanize the animal.
- (B) If an animal suffers from any of the conditions listed in 1-6 above, but is not in acute pain, the authorized officer has the authority and obligation to euthanize the animal in a humane and timely manner. In situations where acute suffering of the animal is not involved, it is recommended that a consultation with a veterinarian is obtained prior to euthanasia. The authorized officer will ensure that there is a report from a veterinarian describing the condition of the animal that was euthanized. These records will be maintained by the authorized officer.

The following action plan will be followed for animals at long-term holding facilities:

The WH&B Specialist who is the Project Inspector and the contractor will evaluate all horses and their body condition throughout the year. Once a year a formal evaluation as well as a formal count of all horses at long-term holding facilities will be conducted. The action plan for the formal evaluation is as follows:

1. All animals will be inspected by field observation to evaluate body condition and identify animals that may need to be euthanized to prevent a slow death due to deterioration of condition as a result of aging. This evaluation will be based on the Henneke body condition scoring system. The evaluation team will consist of a BLM WH&B Specialist and a veterinarian not involved with regular clinical work or contract work at the long-term holding facilities. The evaluations will be conducted in the fall (September through November) to identify horses with body condition scores of 3 or less. Each member of the team will complete an individual rating sheet for animals that rate a category 3 or less. In the event that there is not agreement between the ratings, an average of the 2 scores will be used and final decisions will be up to the BLM authorized officer.
2. Animals that are rated less than a body condition score of 3 will be euthanized in the field soon after the evaluation by the authorized officer or their designated representative. The horses that rate a score 3 will remain in the field and should be re-evaluated by the contractor and WH&B Specialist that is the Project Inspector, for that contract, in 60 days to see if their condition is improving, staying the same or declining. Those that are declining in condition should be euthanized soon after the second evaluation.
3. The euthanasia process that will be used is a firearm. The authorized officer or their designated representative will carry out the process. Field euthanasia does not require the gathering of the animals which would result in increased stress and may cause unnecessary injury to other horses on the facility.

4. Documentation for each animal euthanized will include sex, color, and freeze/hip brand (if readable). Copies of all documentation will be given to the contractor and retained by BLM.

5. Arrangements for carcass disposal for euthanized animal(s) will be in accordance with applicable state and county regulations.

In all cases, the final decisions regarding euthanasia of a wild horse or burro for humane reasons rests solely with the authorized officer (43 CFR 4730). Euthanasia will be carried out following the procedures described in the 4750-1 Handbook.

Timeframe: This action is effective from the date of approval through September 30, 2007.

Budget Impact: Implementation of these actions would not result in additional expenditures over present policies.

Manual/Handbook Sections Affected: No manual or handbook sections are affected.

Background: The authority for euthanasia of wild horses or burros is provided by the Wild Free-Roaming Horse and Burro Act of 1971, Section 3(b)(2)(A) 43 CFR 4730.1 and BLM Manual 4730-Destruction of Wild Horses and Burros and Disposal of their Remains.

Decisions to euthanize require an evaluation of individual horses that suffer due to injury, physical defect, chronic or incurable disease, severe tooth loss or old age. The animal's ability to survive the stress of removal and/or their probability of surviving on the range if released, transportation to a BLM facility and to adoption or long-term holding should be determined. The long term care of these animals requires periodic evaluation of their condition to prevent long term suffering. These evaluations will, at times, result in decisions that will require the euthanasia of horses or burros if this is the most humane course of action.

Coordination: This document was coordinated with the Wild Horse and Burro Specialists in each affected state, the National Program Office and Wild Horse and Burro Advisory Board.

Contact: Questions regarding this memorandum should be directed to Lili Thomas, Wild Horse and Burro Specialist, Wild Horse and Burro National Program Office, at (775) 861-6457.

Signed by:
Thomas H. Dyer
Deputy Assistant Director

Authenticated by:
Robert M. Williams
Policy and Records Group, WO-560

1 Attachment

1 – Name of HMA Gather and Removal Report (2 pp)

APPENDIX IV
Selective Removal Criteria

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

August 10, 2005

In Reply Refer To:
4710 (WO 260) P
Ref: IM 2004-138
IM 2004-151

EMS TRANSMISSION 08/16/2005
Instruction Memorandum No. 2005-206
Expires: 09/30/2006

To: All Field Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Gather Policy & Selective Removal Criteria

Program Area: Wild Horse and Burro Program

Purpose: This Instruction Memorandum (IM) establishes gather policy and selective removal criteria for wild horses and burros.

A. Gather Requirements

1. Appropriate Management Level Achievement (AML)

Periodic removals will be planned and conducted to achieve and maintain AML and be consistent with AML establishment and removal decisions. Removals below AML may be warranted when a gather is being conducted as an “emergency gather” as defined in I.M. 2004-151 or where significant rationale is presented to justify a reduction below AML

2. National Environmental Policy Act (NEPA) Analysis and Decision

A current NEPA analysis and gather plan is required. This NEPA analysis and determination to remove excess animals must include and be supported by the following elements required by case law and the Public Rangelands Improvement Act (1978): vegetative utilization and trend, actual use, climatic data and current census. Along with standard components, the NEPA analysis must also contain the following:

- a. Results of population modeling that forecast impacts to the Herd Management Area's (HMA's) population resulting from removals and fertility control treatments.
 - b. The desired post-gather on-the-range population number, age structure and sex ratio for the managed population.
 - c. Fertility control will be considered in all Gather Plan/NEPA documents (IM No. 2004-138) and will be addressed in the population model analysis. A "do not apply" decision will be justified in the rationale.
 - d. The collection of blood samples for development of genetic baseline data.
3. Where removals are necessary to achieve or maintain thriving natural ecological balance, all decisions shall be issued full force and effect under the authority of 43 CFR § 4770.3(c).
 4. All gathers that have been approved by Washington Office (WO) through the annual work plan process and that are listed on the National Gather Schedule may proceed without further approval. Changes to the gather schedule involving increased removal numbers for listed gathers, adding new gathers, or substituting gathers require approval by WO-260. Requests for such gathers will be submitted using Attachment 1 to WO-260, Reno National Program Office (NPO), for review and approval by the WO-260 Group Manager.

No WO approval is required for the removal of up to 10 nuisance animals per instance unless a national contractor conducts the removal.

5. A gather and removal report (Attachment 2) is required for each wild horse and burro gather. Partial completion reports shall be filed periodically (every 2 to 5 days) during large lengthy gathers. A final report for all gathers will be submitted to the State WH&B Lead and WO-260, NPO, within ten days of gather completion.

B. Selective Removal Requirements

The selective removal criteria described below applies to all excess wild horses removed from the range. These criteria are not applicable to wild burros.

When gathers are conducted emphasis will be placed on the removal of younger more adoptable animals. However, the long term welfare of wild horse herds is critical and it is imperative that close attention be given to the post-gather on-the-range herd sex ratio and age structure to assure a healthy sustainable population.

Animals with conditions that may prevent adoption should be released to the range if herd health will not be compromised or harmed. Example conditions are disease, congenital or genetic defects, physical defect due to previous injury, and recent but not life threatening injury.

1. Age Criteria: Wild Horses will be removed in the following priority order:

a). Age Class -Five Years and Younger

Wild horses five years of age and younger should be the first priority for removal and placement into the national adoption program.

b). Age Class - Six to Fifteen Years Old

Wild horses six to fifteen years of age should be removed last and only if management goals and objectives for the herd can't be achieved through the removal of younger animals.

Animals encountered during gather operations should be released if, in the opinion of the Authorized Officer, they may not tolerate the stress of transportation, preparation and holding but would survive if released. Older animals in acceptable body condition with significant tooth loss and/or excessive tooth wear should also be released. Some situations, such as removals from private land, total removals, or emergency situations require exceptions to this.

c). Age Class Sixteen Years and Older

Wild horses aged sixteen years and older should not be removed from the range unless specific exceptions prevent them from being turned back and left on the range.

C. Potential Exceptions to Selective Removal Requirements

1. Nuisance animals
2. Animals outside of an HMA
3. Land use plan or activity plan identifies certain characteristics that are to be selectively managed for in a particular HMA (Examples: Spanish characteristics, Bashkir "Curly" or others).
4. Total removals required by law or land use plan decisions
5. Court ordered gathers
6. Emergency gathers (see IM 2004-151)
7. Removal of wild horses treated with fertility control PZP. Specific instructions are outlined in IM 2004-138 in regards to removal of these animals.

Timeframe: The wild horse and burro gather and selective removal requirements identified in this IM are effective immediately and will expire on September 30, 2006.

Budget Impact: Once AML is attained, it will cost approximately \$1.7 million in additional gather costs annually to implement the selective removal policy. This action, on an annual basis, will avoid removal of about 1,500 unadoptable animals (older than five years) that would cost about \$10 million to maintain in captivity over their lifetime.

This policy will achieve significant cost savings by minimizing the numbers of less adoptable animals removed prior to the achievement of AML and making the removal of older animals negligible in future years.

Background: The 1992 Strategic plan for the WH&B program defined criteria for limiting the age classes of animals removed so that only the most adoptable animals were removed. The selective removal criteria from Fiscal Years 1992 through 1995 allowed the removal of animals five years of age and younger. In 1996, because of drought conditions in many western states, the selective removal policy was changed to allow for the removal of animals nine years of age and younger. In 2002, the removal policy was modified to allow for prioritized age specific removals: 1st priority remove five years of age and younger animals, 2nd priority 10 years and older and last priority animals aged six to nine years if AML could not be achieved.

This selective removal policy provides for the long term welfare of on the range populations, emphasizes the removal of the most adoptable younger animals to maintain and achieve AML and directs that older horses less able to stand the rigors of capture, preparation, and transportation stay on the range.

Manual/Handbook Sections Affected: The gather and selective removal requirements do not change or affect any section of any manual or handbook.

Coordination: Varying policies on selective removal have been in place and coordinated with field staffs since the early 1990's. The revised policy was developed by the WO, circulated to field offices for review and comment, and presented to the National Wild Horse and Burro Advisory Board. In addition, the concept of selective removal was part of the FY 2001 Strategy to Achieve Healthy Lands and Viable Herds; The Restoration of Threatened Watersheds Initiative that was widely communicated to Congress and the general public.

Contact: Questions concerning this policy should be directed to Dean Bolstad in the Wild Horse and Burro National Program Office, at (775) 861-6611.

Signed by:
Laura Ceperley
Acting Assistant Director
Renewable Resources and Planning

Authenticated by:
Barbara J. Brown
Policy & Records Group, WO-560

2 Attachments

- 1 - Request to Gather Memo (1 p)
- 2 - Gather and Removal Report (1 p)

APPENDIX V

**Standard Operating Procedures for Fertility Control Treatment
Initial Dose of Porcine Zona Pellucida Contraceptive (PZP) One-Year Vaccine**

The following management and monitoring requirements are part of the Proposed Action:

- PZP vaccine would be administered by trained BLM personnel.
- The fertility control drug is administered with an initial primer dose and annual booster injections: (1) an initial liquid dose of PZP primer and adjuvant will be administered using an 18 gauge needle by hand injection, with 1 and 3 month pellets administered by jab stick; (2) an annual booster liquid dose of PZP will be administered by remote delivery with a dart gun.
- Delivery of the vaccine would be as an intramuscular injection into the left hind quarters of the mare, just below the imaginary line that connects the point of the hip and the point of the buttocks.
- All treated mares would be photo-identified or freeze-marked on the hip to enable researchers to positively identify the animals for data collection.
- Monitoring of reproductive rates using helicopter flyovers will be conducted in years 2 through 5 by checking for presence/absence of foals. In addition, field monitoring will be routinely conducted as part of other regular ground-based monitoring activities.
- A field data sheet will be used by the field applicators to record all the pertinent data relating to identification of the mare (including a photograph when possible), date of treatment, type of treatment (initial dose of primer/adjuvant and 1 and 3 month pellets and/or remote delivery) and HMA, etc. The original form with the data sheets will be forwarded to the authorized officer at NPO (Reno, Nevada). A copy of the form and data sheets and any photos taken will be maintained at the field office.
- A tracking system will be maintained by NPO detailing the quantity of PZP issued, the quantity used, the disposition of any unused PZP, the number of treated mares by HMA, field office, and state along with any freeze-mark applied by HMA.
- The field office will assure that treated mares do not enter the adoption market for one year following the most recent treatment. In the rare instance, due to unforeseen circumstance, treated mare(s) are removed from an HMA before one year has lapsed, they will be maintained in either a BLM facility or a BLM-contracted long term holding facility until expiration of the one year holding period. In the event it is necessary to remove treated mares, their removal and disposition will be coordinated through NPO. After expiration of the one year holding period, the animal may be placed in the adoption program or sent to a long-term holding facility.

**Protocol for Subsequent Treatment of Wild Mares
with Porcine Zona Pellucida Contraceptive (PZP) Vaccine
Via Darting (Years 2-5), As Needed**

I. PURPOSE

This is a population-based trial designed to suppress herd growth rates within the Spring Mountains Complex (Johnnie and Wheeler Pass/Spring Mountains and Red Rock HMAs/WHTs) in order to manage for healthy horses on healthy ranges. In 2007, approximately 35-40 mares from the Johnnie and Wheeler Pass/Spring Mountains HMAs/WHTs would be hand-injected with a primer dose of porcine zona pellucida (PZP) contraceptive vaccine and adjuvant, with 1 and 3 month pellets injected by jab stick. In subsequent years (2-5 following initial treatment), marked mares would be darted with the 1.0cc Pneu-Darts®; remote delivery would be by Dan-Inject or PneuDart capture gun. Mares on the Red Rock herd area would also be treated with PZP via darting, over the next 1-5 years, as needed, to slow population growth. Initial and follow-up darting of Red Rock mares could begin as early as February 2007. **Darting would be completed only if field monitoring indicates population growth rates exceed 5%.**

II. PARTICIPANTS

Project Manager(s):

- Jerrie Bertola, Wild Horse and Burro Specialist, LVFO, BLM
- TBD, USFS

Certified Darters:

- Jason Ransom, BRD-USGS Wild Horse Crew Leader (2008);
- Heidi Hopkins, WFO, BLM and/or other certified applicator (outyears).

Veterinarian: a licensed veterinarian will be on-call, to provide support as needed.

III. PROCEDURES

A. Vaccine preparation and shipment: Vaccine would be prepared under the supervision of a certified applicator and transported to the field on dry ice, under Food and Drug Administration authority (Investigational New Animal Drug exemption No.8857 G0002 & 0003).

B. Selection of subject animal: Animals to be treated by darting have either been previously treated following the 2007 gather and freeze-marked or are individually identified. **Offspring of treated animals would be allowed to foal normally until the next gather cycle.** All animals selected for treatment would be female and at least one year old. If the identification of any horse is questionable, that horse would not be darted. The ultimate decision rests jointly with the darter and BLM and/or USFS project manager.

C. Delivery of contraceptive vaccine: Vaccine would be delivered by 1.0 cc Pneu-Darts®, with 1.5" barbless needles. 0.5 cc of the PZP vaccine (in sterile water) would be emulsified with 0.5 cc of adjuvant and loaded into darts when the decision is made to dart a specific mare. Animals would be treated with PZP + Freund's adjuvant.

Only trained applicators would mix the vaccine/adjuvant and prepare the emulsion. Vaccine-adjuvant emulsion would be loaded into darts at the darting site and delivered by means of a capture gun. Authorization to dart animals is limited to trained personnel.

Safety is the foremost consideration in deciding to dart a mare. Darting with the Dan Inject gun would not be attempted at ranges in excess of 30 meters, or when other persons are near the target animal.

Darting will be done on federal land only. Darting would not be done at water sources, but may be attempted as horses travel to/from water sources.

Only low velocity (brown) or medium velocity (green) charges would be used in this project. Only hip or gluteal muscle regions of the horse are acceptable targets. No attempts would be taken in high wind or when the horse is standing at an angle where the dart could miss the hip/gluteal region and hit the rib cage. The ideal angle is when the dart would strike the skin of the horse at a perfect 90 degree angle.

If a horse moves out of firing range after the gun is loaded, and another attempt would not be immediately possible, the gun would be unloaded and both the cartridge and dart stored in a poly-foam container. If a loaded dart is not used within 2 hours of the time of loading, the contents would be transferred to a new dart before attempting another horse. If the dart is not used before the end of the day, it would be stored under refrigeration and the contents transferred to another dart and used the next day. Refrigerated darts would not be used in the field.

Immediately after firing, the empty cartridge would be ejected, and the dart port opened. Every To assure the dart gun is properly sighted, early morning practice would be required each day the dart gun is used. No more than two people should be present during darting. The second person should be responsible for locating fired darts. The most knowledgeable person should also be responsible for identifying the horse.

Fatigue and weather can be important factors in making decision(s) to stop the operation. The final decision rests with the darter. If darting is done within view of non-participants or members of the public, an explanation of the nature of the project should be made.

D. Recovery of darts: Attempts would be made to recover all darts. Whenever possible, the dart would be recovered before darting another horse. If a dart can not be found, the area would be noted and marked to facilitate later recovery efforts. All discharged darts would be examined after recovery to determine if the charge fired and the plunger fully expelled the vaccine.

E. Record keeping: The project manager(s) would maintain records of all horses darted. These records would be used to meet FDA regulations for use of the vaccine under the existing INAD. Each horse darted would be either freeze-marked with a 2 digit BLM code or individually identified. BLM Form ## would be completed for each horse darted.

Foal counts will be carried out annually by BLM personnel.

F. Veterinary Emergencies: In the event of a veterinary emergency, darting personnel would immediately contact the Project Manager. As appropriate, the Project Manager would contact the on-call veterinarian.

G. Media relations: All requests by the media (verbal, written or electronic) will be coordinated with the BLM-Las Vegas Field Office Public Affairs staff.

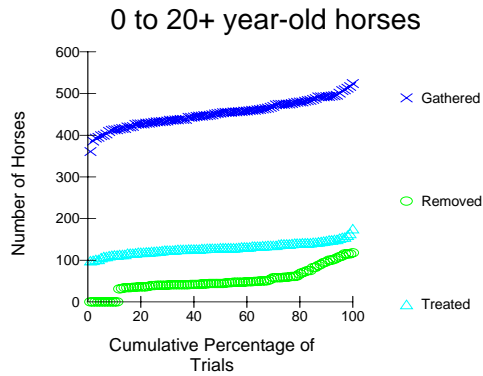
H. Agency Consultation and Coordination: The BLM Project Manager shall notify other agencies with dates when darting is planned.

APPENDIX VI
Spring Mountains Complex
BLM Herd Area/Herd Management Area Data

	BLM	Other	Total
Spring Mtns HA	772,634	22,834	795,468
Wheeler HMA	273,260	3,644	276,904
Red Rock HMA	157,251	4,721	161,972
To USFS	218,368	4,303	222,671
Spring Mt HA Remaining	123,755	10,166	133,921
Spring Mt HA Total	772,634	22,834	795,468
Original FS inside Spring Mt	62,885	6,679	69,564
Mt Sterling HA	79,478	1,281	80,759
Acres to Johnnie HMA	45,613	727	46,340
Acres to USFS	33,865	230	34,095
Acres remaining in HA		324	324
Last Chance HA	138,050	23,933	161,983
Acres to Johnnie HMA	131,698	1,342	133,040
Acres to USFS	3,689	97	3,786
Acres remaining in HA	2,663	22,494	25,157
Johnnie HMA	177,310	2,069	179,379
Acres from Mt Sterling	45,613	727	46,340
Acres from Last Chance	131,697	1,342	133,039

APPENDIX VII – POPULATION MODELING RESULTS

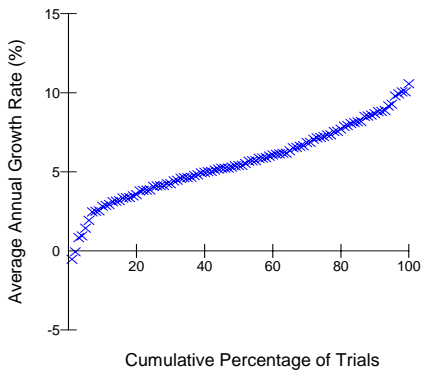
POPULATION MODELING RUNS WITH REMOVALS AND FERTILITY CONTROL



Totals in 11 Years*

	Gathered	Removed	Treated
Lowest Trial	361	0	99
10th Percentile	413	0	113
25th Percentile	432	40	122
Median Trial	454	44	130
75th Percentile	475	60	139
90th Percentile	493	98	148
Highest Trial	524	118	176

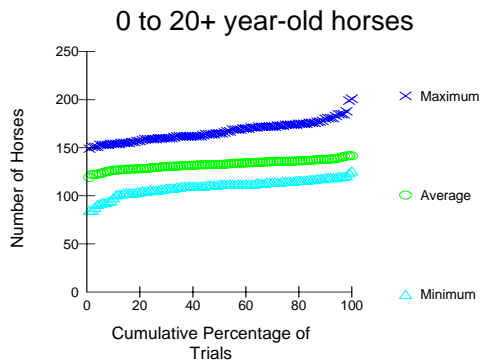
* 0 to 20+ year-old horses



Average Growth Rate in 10 Years

Lowest Trial	-0.5
10th Percentile	2.8
25th Percentile	4.1
Median Trial	5.4
75th Percentile	7.3
90th Percentile	8.7
Highest Trial	10.6

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

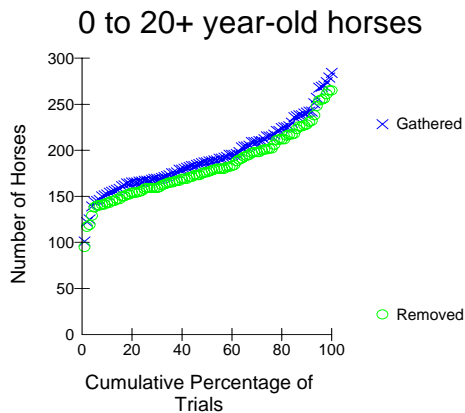


Population Sizes in 11 Years*			
	Minimum	Average	Maximum
Lowest Trial	71	104	138
10th Percentile	98	122	150
25th Percentile	105	127	154
Median Trial	111	133	161
75th Percentile	114	137	170
90th Percentile	118	141	176
Highest Trial	123	145	198

* 0 to 20+ year-old horses

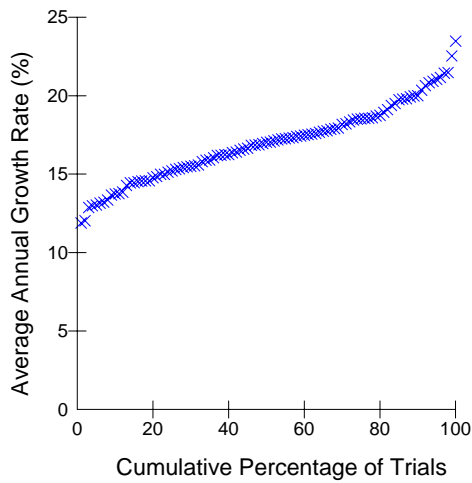
(In ½ of the trails minimum population size in 11 yrs < than 111 and the maximum was < 161. Average population size in 11 yrs ranges from 104 to 145.)

POPULATION MODELING RUNS WITH REMOVALS ONLY

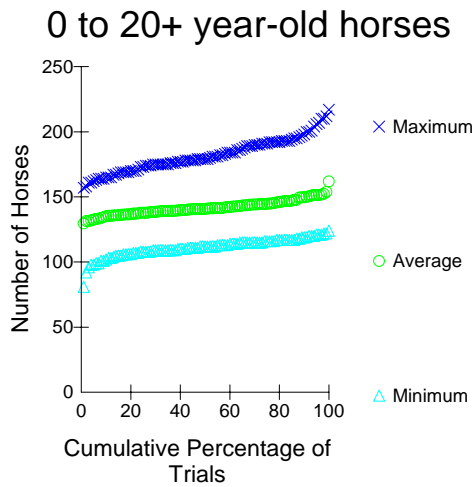


Totals in 11 Years*		
	Gathered	Removed
Lowest Trial	101	95
10th Percentile	153	143
25th Percentile	167	158
Median Trial	188	176
75th Percentile	215	202
90th Percentile	242	230
Highest Trial	284	265

* 0 to 20+ year-old horses



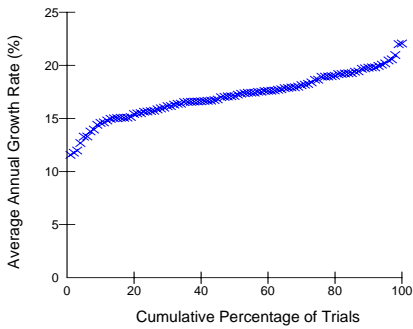
Average Growth Rate in 10 Years	
Lowest Trial	11.9
10th Percentile	13.7
25th Percentile	15.3
Median Trial	17.0
75th Percentile	18.5
90th Percentile	20.2
Highest Trial	23.5



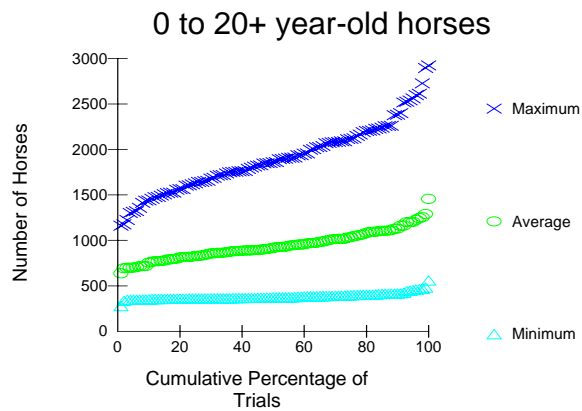
Population Sizes in 11 Years*			
	Minimum	Average	Maximum
Lowest Trial	81	130	157
10th Percentile	102	135	165
25th Percentile	108	138	174
Median Trial	112	141	179
75th Percentile	116	145	192
90th Percentile	119	150	199
Highest Trial	124	162	217

* 0 to 20+ year-old horses
(In ½ of the trails minimum population size in 11 yrs < than 112 and the maximum was < 179.
Average population size in 11 yrs ranges from 130 to 162.)

POPULATION MODELING RUNS WITH NO REMOVALS



Average Growth Rate in 10 Years	
Lowest Trial	11.6
10th Percentile	14.6
25th Percentile	15.7
Median Trial	17.2
75th Percentile	18.8
90th Percentile	19.8
Highest Trial	22.1



Population Sizes in 11 Years*			
	Minimum	Average	Maximum
Lowest Trial	278	638	1162
10th Percentile	354	759	1448
25th Percentile	361	829	1634
Median Trial	374	920	1860
75th Percentile	399	1040	2120
90th Percentile	418	1144	2390
Highest Trial	559	1455	2923

* 0 to 20+ year-old horses
 In ½ of the trails minimum population size in 11 yrs < than 374 and the maximum was < 1,860.
 Average population size in 11 yrs ranges from 638 to 1,455.)

APPENDIX VIII
**Detailed Summary of Public Comments Received During Scoping
and How BLM Used the Comment in Preparing the Preliminary EA**

Comment No.	Name	Comment	How Comment Was Used
1	Billie Young	First, “minimum level” management must include the objective of managing wild horses and burros under the principle of multiple use.	Comment 1 is incorporated in Issue 1. Also refer to the Purpose and Need, page 4-7 of this EA.
2	Billie Young	The use of contraception has been used minimally even though moneys were allocated several years ago for use in Clark County.	Comment 2 was incorporated into Issue 3. The use of fertility control is an alternative which has been considered in detail in this analysis. Please refer to EA, page 9 and pages 21-25.
3	Billie Young	By providing WH&B educational and awareness programs, the benefits to the wild horses, burros, ranges and community would increase.	Comment 3 was outside the scope of this analysis. We agree public outreach is important, however, the scope of this analysis is limited to analysis of potential population control methods to address the range deterioration associated with the current overpopulation of wild horses and burros.
4	Billie Young	Showcasing our local animals should be an intended part of any local gather.	Comment 4 was outside the scope of this analysis (see response to Comment 3 above). However, we agree that finding good homes for the excess animals is of paramount importance. As a result, excess animals will be made available for adoption at BLM adoption centers. Additionally, we are asking any private citizens meeting BLM’s minimum facilities requirements to forward a completed adoption application to the Las Vegas Field Office, Attn: Jerrie Bertola, WH&B Specialist. Based on the number of qualified adopters, BLM proposes to work with non-profit groups and others to adopt SMC horses and burros.
5	Billie Young	In recent years, it has become apparent that gathering in Southern Nevada is a stand-alone management technique. Under the current poor management practices, I do not support the presented gather as it is written.	Please refer to BLM’s response to Comment 4 above.
6	Cindy MacDonald	BLM’s WH&B program statistics change from year to year.	Comment 6 was outside the scope of this analysis. Refer to BLM’s response to Comment 3 above.
7	Cindy MacDonald	Please clarify the number of animals present as compared to the AML for each of the affected areas.	Comment 7 was incorporated into Issue 1. Also, please refer to the EA, pages 4-7, pages 9-10, and pages 21-25.
8	Cindy MacDonald	If BLM’s AML is a reasonably accurate level of sustained animal support, how have 1,093 animals survived during such challenging environmental conditions? This shows the land is quite capable of supporting higher numbers.	Comment 8 is outside the scope of this analysis. The appropriate management levels (AMLs) for horses and burros within the SMC HMAs and WHTs were previously decided (refer to EA, page 7).
9	Cindy MacDonald	The Cold Creek herd is one of our best tourism.	Comment 9 was outside the scope of this analysis. Refer to BLM’s response to Comment 3 above.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 68

10	Cindy MacDonald	The BLM has set an AML of 0 horses for the Johnnie HMA, despite the fact that many are surviving there anyway. The same is true for the Muddy and Eldorado Mountains HMAs.	Comment 10 was outside the scope of this analysis. The appropriate management levels (AMLs) for horses and burros within the SMC HMAs and WHTs were previously decided (refer to EA, page 7).
11	Cindy MacDonald	No current AML is being reported for the Wheeler Pass HMA. No gathers should be planned until that information is released.	Comment 11 was one of many incorporated into Issue 1. Also refer to the EA, page 7.
12	Cindy MacDonald	BLM reports a statewide burro population of 998, yet BLM is proposing to eliminate 570 burros from the Spring Mountain Herd Complex.	Comment 12 was incorporated into Issue 1.
13	Cindy MacDonald	An environmental assessment (EA) has yet to be published.	This EA has been prepared to analyze the impacts of the proposed action and its alternatives.
14	Cindy MacDonald	Another related issue is whether or not BLM is providing proper amounts of personnel to navigate their workload.	Comment 14 is outside the scope of this analysis. Staffing is an administrative action internal to BLM.
15	Cindy Macdonald	When the EA is published, the inclusion of a complete proposal of fertility control treatment needs to be included.	Comment 15 was incorporated into Issue 3. The use of fertility control is an alternative which has been considered in detail in this analysis. Please refer to EA, page 9 and pages 21-25.
16	Cindy MacDonald	BLM's proposed and actual wild horse removal numbers often differ.	Comment 16 is outside the scope of this analysis. Refer to BLM's response to Comment 3 above.
17	Cindy MacDonald	The financial cost of round ups, holding and fertility control is a concern.	Comment 17 is outside the scope of this analysis. Budget is an administrative action internal to BLM. Moreover, under the 1971 WH&B Act, when BLM determines excess animals are present, immediate removal is required (refer to Section 3(b)(2) and EA, page 7-8 for more information).
18	Cindy MacDonald	Reports of horses and burros being sold at livestock auctions before reaching containment areas is a concern.	Comment 18 is outside the scope of this analysis. BLM makes every effort to ensure wild horses and burros removed from the range are placed in qualified homes and are not sent to slaughter.
19	Cindy MacDonald	BLM has zeroed out 102 HMAs, one third of our legally established and protected wild horse and burro areas.	Comment 19 is outside the scope of this analysis. Refer to BLM's response to Comment 3 above. Also, please refer to the EA, page 21, for a discussion of the original Spring Mountains HA and current designated HMAs.
20	Cindy MacDonald	What I haven't seen is BLM managing HMAs in accordance with PL 92-195 which states WH&B areas should be DEVOTED PRINCIPALLY but not exclusively to their care.	Comment 20 is outside the scope of this analysis. The HMAs and WHTs within the Spring Mountains Complex were designated for long-term management of horses and burros in approved land use plans, but were not considered for designation as horse or burro ranges to be managed principally, but not exclusively, for horses and burros. This issue was previously decided. Refer to EA, page 7.
21	Cindy MacDonald	BLM is "principally devoting" our HMA rangelands to the grazing preferences of livestock.	Comment 21 is outside the scope of this analysis. There has been no authorized livestock grazing within the affected HMAs for the past 30 years. Refer to the EA, page 14.
22	Elnoma Reeves	I am writing to request that no action be taken concerning this proposed round-up.	Comment 22 is outside the scope of this analysis. BLM has determined that excess wild horses and burros are present and require immediate removal in

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 69

			order to prevent a deterioration of the range consistent with Section 3 (b) (2) of the 1971 Wild Free-Roaming Horses and Burros Act, as amended. Refer to EA, page 7. Also refer to 43 Code of Federal Regulations (CFR) 4720.1.
23	Elnoma Reeves	Managing at low population levels places our wild horses in jeopardy of long range loss of genetic viability and raises the chances of inbreeding.	Comment 23 was incorporated into Issue 4.
24	Elnoma Reeves	During a round up these terrified animals are run hard over rough terrain. This leaves them open to injury, illness and even death.	Comment 24 was consolidated into Issue 2. To minimize potential impacts to wild horses and burros, BLM would conduct the gather operations in accordance with the Standard Operating Procedures (refer to Appendix II). Also, BLM prohibits gathering wild horses by helicopter six weeks prior to and six weeks following the peak foaling season, or from March 1-June 30 (refer to BLM Manual 4720.2.21 and 4740.1).
25	Elnoma Reeves	What are the direct, indirect, short and long term impacts of fertility control? I feel it is imprudent to administer any drug to our horses until its full impact is known.	Comment 25 was consolidated into Issue 3. The use of fertility control is an alternative which has been considered in detail in this analysis. Please refer to EA, page 9 and pages 21-25.
26	Elnoma Reeves	Until BLM can assure that horses will not end up slaughtered, they should not be rounded up.	Comment 26 is outside the scope of this analysis. Refer to BLM's response to Comments 3 and 18 above.
27	Elnoma Reeves	Not gathering would also relieve the taxpayer's burden.	Comment 27 is outside the scope of this analysis. Also refer to BLM's response to Comment 17 above.
28	Elnoma Reeves	The long-term well being of our wild horses should always be taken into account before any action is taken.	Comment 27 was consolidated into Issue 1.
29	Connie Brady	To round-up horses is inhumane with temperatures sitting at over 100 degrees.	Comment 29 was consolidated into Issue 2. The gather is proposed for January 2007, when average daytime temperatures average less than 80 degrees. Additionally, BLM would conduct the gather operations in accordance with the Standard Operating Procedures (refer to Appendix II).
30	Connie Brady	Supplying water seems like a reasonable alternative.	Comment 30 is addressed in the EA, page 12.
31	Connie Brady	I see no good reason why these animals should again be rounded up. I say "No" to a round-up and urge you to rethink the issue.	Comment 31 was consolidated into Issue 1.
32	Lori Owens	By reducing the herd to 26 in the Cold Creek area, won't they be more susceptible to environmental hardship and inbreeding?	Comment 32 was incorporated into Issue 4.
33	Lori Owens	I am concerned that animals older than 10 years old will end up in slaughterhouses.	Comment 33 was outside the scope of this analysis. Refer to BLM's response to Comments 3 and 18 above.
34	Lori Owens	Why not set up some kind of partnership with groups to monitor a water source or keep an eye on a herd on a weekly or bi-weekly basis to help with management of these horses and burros?	Comment 34 was outside the scope of this analysis. Refer to BLM's response to Comment 3 above. Also refer to EA, page 12.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

35	Lori Owens	These horses can bring in tourist dollars.	Comment 35 was outside the scope of this analysis. Refer to BLM's response to Comment 3 above.
36	Lori Owens	I support gathering based on established scientific principles.	Comment 36 was one of many consolidated into Issue 1.
37	<input type="checkbox"/> Shanda Schutler <input type="checkbox"/> Illegible Signature, Greeley, CO <input type="checkbox"/> Barbara Cunningham <input type="checkbox"/> Mikki Bailey <input type="checkbox"/> Barbara Warner	I worry that not enough animals are being left on the range to ensure for a healthy genetic diversity.	Comment 37 was one of many consolidated into Issue 4.
38	<input type="checkbox"/> Shanda Schutler <input type="checkbox"/> Illegible Signature, Greeley, CO <input type="checkbox"/> Barbara Cunningham <input type="checkbox"/> Mikki Bailey <input type="checkbox"/> Barbara Warner	The round-ups and transport are extremely stressful to the horses and despite care and precautions it is likely some animals will be injured.	Comment 38 was consolidated into Issue 2. Also refer to BLM's responses to Comments 24 and 29 above.
39	<input type="checkbox"/> Shanda Schutler <input type="checkbox"/> Illegible Signature, Greeley, CO <input type="checkbox"/> Barbara Cunningham <input type="checkbox"/> Mikki Bailey <input type="checkbox"/> Barbara Warner	Even the most loyal supporters of the adoption program have to admit the program has some flaws and some horses do end up in slaughterhouses. Still round-ups continue at great cost to taxpayers.	Comment 39 was outside the scope of this analysis. Refer to BLM's response to Comments 3 and 18 above.
40	<input type="checkbox"/> Shanda Schutler <input type="checkbox"/> Illegible Signature, Greeley, CO <input type="checkbox"/> Barbara Cunningham <input type="checkbox"/> Mikki Bailey <input type="checkbox"/> Barbara Warner	I strongly advocate a humane management program that is not based on removal, such as that used to control the herds of Assateague Island.	Comment 40 was consolidated into Issue 3. Additionally, an alternative which would have applied fertility control (no removals) as the primary management option was considered but dismissed from detailed study. Refer to EA, page 11.
41	Department of Wildlife, Las Vegas	NDOW supports the removal of approximately 250 excess wild horses and 570 wild burros from the Spring Mtn herd complex and approximately 60 animals of a mix of wild horses and burros from the Eldorado, Gold Butte and Muddy Mountains HMAs. NDOW agrees with the need for the proposed removals of wild horses and burros down to the lower limits of the appropriate management level (AML) for the respective HMAs.	Comment #41 was incorporated into Issue 1 (EA, page 6).
42	Department of Wildlife, Las Vegas	Intensive birth control could lead to increased stress for all wildlife	Comment 42 was incorporated into Issues 3 and 5. Also, refer to the EA, page 14-19.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

		species, especially with one-year PZP treatment and subsequent delivery by darting.	
43	Department of Wildlife, Las Vegas	BLM and Forest Service need to census to make sure numbers are as accurate as possible.	This comment is incorporated into Issue 1 (EA, page 6).
44	Department of Wildlife, Las Vegas	Following the gathers, it will be crucial for BLM to perform periodic vegetation monitoring to measure progress in successfully achieving and maintaining a thriving natural ecological balance in the areas where wild horses and burros will be managed.	Comment 44 was used in Chapter 4.
45	Division of State Lands	Supports the proposed action as written.	This comment is incorporated into Issue 1 (EA, page 6).
46	Janet Little	What is the potential for increased signing in the area (to minimize animal-public collisions)?	Comment 46 is outside the scope of this analysis. Refer to BLM's response to Comment 3 above. However, BLM and the USFS are also concerned about safety and look forward to the opportunity to work with the Cold Creek community to address this issue for the future.
47	Janet Little	What would the cost of gelding be and can both gelding and fertility control be done together?	Comment 47 was incorporated in Issue 3. Also, refer to the EA, page 10 and pages 21-25.
48	Janet Little	Can a public meeting be held in Cold Creek to talk to the residents and to explain more of the details to the residents?	In response to this request, two public meetings are planned in November 2006.
49	Janet Little	Can long term management plans be posted on the internet so the public can access them in the future?	Comment 49 is outside the scope of this analysis. Refer to BLM's response to Comment 3 above. Regrettably, BLMs ability to post documents on the internet is hampered by staffing and funding availability. Regardless, everyone on the field office's wild horse and burro mailing list is advised of document availability.
50	Janet Little	Why are wild horses gathered and elk and deer populations aren't?	Comment 50 is outside the scope of this analysis. Management of elk and deer populations is the responsibility of the Nevada Department of Wildlife, who establishes hunting seasons, as appropriate, to manage population size.
51	Janet Little	What is the possibility of feeding hay to the wild horses like they do elk in Jackson Hole?	Comment 51 is one of many incorporated in Issue 1. Also refer to the EA, page 12. Feeding hay to wild horses which venture into the Cold Creek community encourages them to stay in the area, and increases potential for animal-vehicle collisions and injury/death.
52	Janet Little	Is there a way to extend the gather cycle so that the horses are not gathered so frequently?	Comment 52 was incorporated in Issue 1. Also, refer to the EA, page 9 and pages 21-25.
53	Fraternity of the Desert Bighorn	Supports the gathering of wild horses and burros to achieve goals for habitat preservation for both wild and wild horses and burros	This comment is incorporated into Issue 1 (EA, page 6).

APPENDIX IX
Detailed Summary of Public Comments Received in Response
to Review of the Preliminary EA
and How BLM Used the Comments in Finalizing the EA

The preliminary EA was mailed on November 7, 2006 to 35 individuals, groups and agencies for a 30 day review and comment period. Fifty-four (54) individuals, groups and agencies reviewed and provided comment on the above referenced document. BLM's response to the comments received and how BLM used the comments in finalizing the EA is summarized in detail below:

Comment No.	Name	Comment	How Comment Was Used
1	Trevor Dolby	My comment is "yea, get rid of them, all 780 of them and more. And make dog food out of them instead of spending more money on the culls."	This issue is outside the scope of this environmental analysis. The need to remove excess horses and burros is discussed in the EA, page 4-5. By law, BLM is required to protect and manage horses and burros both on and off the range and makes every effort to assure no animals are slaughtered or used for other commercial purposes.
2	Cindy MacDonald	Although no DR/FONSI has been issued regarding the proposals at this time, I am requesting a "stay" in order to prevent the BLM from issuing a full force and effect decision to remove wild horses in the SMC.	<p>This issue is outside the scope of this environmental analysis. The regulations do not provide for an appeal or stay of a preliminary environmental assessment; rather, 43 CFR 4770.3 (a) provides any person adversely affected by a decision of the authorized officer to file an appeal; appeals and petition for stay of a decision of the authorized officer must be filed in accordance with 43 CFR Part 4. Therefore, no action was taken in regard to this request.</p> <p>43 CFR 4770.3 (c) provides BLM with authority to make decisions effective upon issuance when removal is necessary to preserve or maintain a thriving natural ecological balance and multiple use relationship. This authority was affirmed in federal court (Blake v. Babbitt 93-0726), in which the court states: "(BLM) regulation eliminating automatic stay of removals of excess horses and burros from public lands pending any appeals, and allowing delegated field officer of BLM to make and place in full force and effect a decision to remove wild horses or burros, was reasonable interpretation of Public Rangelands Act of 1978; adversely affected persons were still allowed to appeal removal decision and to seek to stay removal pending appeal."</p>
3	Cindy MacDonald	The BLM LVFO's assertion that horses are "excessive" in the SMC aren't valid. An actual population of 327 wild horses compared to a maximum AML of 120 horses for Johnnie and Wheeler Pass, indicates the excess population is only 200 horses. Cold Creek residents believe an illegal gather which removed 200 horses was conducted on August 5-6, 2006 based upon questioning of a wrangler and the presence of a low flying helicopter.	<p>This comment was incorporated into Issue 1 in the EA (page 7). BLMs determination that excess horses and burros are present in the SMC is summarized in the EA, page 4. This determination was based on census and distribution flights as well as resource monitoring data.</p> <p>Neither BLM or USFS conducted a gather of horses or burros in the SMC during August 2006. Agency law enforcement is aggressively investigating the allegations.</p>

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

4	Cindy MacDonald	BLM halted an “independent” verification of census numbers by local residents. Despite this public concern, no specific populations were cited for the Wheeler Pass HMA/WHT in the EA.	<p>This issue is outside the scope of this environmental analysis. The BLM conducts census operations with experienced pilots under strict protocols in accordance with authority provided in Section 9 of the 1971 WH&B Act and 43 CFR 4740.1 (a) and (b). The regulations (43 CFR 4770.1) prohibit anyone from maliciously or negligently injuring or harassing a wild horse or burro. In the absence of an experienced pilot and strict protocols, potential for serious injury to wild horses and burros exists. In lieu of an “independent” verification, BLM invited two representatives of the Cold Creek community to conduct an on-the-ground survey of wild horse numbers and resource conditions in October 2006. In addition, Christine Brehm, from the Nevada Wild Horse Commission, was on-board during the distribution flights BLM conducted in October as an independent observer.</p> <p>The current estimated population of horses and burros in the SMC is reported in the EA on page 4. More specifically, 268 wild horses and 126 burros are estimated in the Wheeler Pass/Spring Mtns HMA/WHT. This is about 221 horses above the AML of 47 and 106 burros above the AML of 20.</p>
5	Cindy MacDonald	The 2007 National Gather Schedule reports far fewer horses to be gathered/removed than are proposed in the EA.	You are correct. We apologize. The copy of the 2007 National Gather Schedule you reference incorrectly reports the numbers proposed for gather/removal in the SMC. The national gather schedule has been corrected accordingly.
6	Cindy MacDonald	The second issue is contention of rangeland resources, monitoring, assessments, etc. in the new AML establishments (DR/FONSI issued December 15, 2005).	This issue is outside the scope of this analysis. The LVFO re-established AMLs for the Johnnie, Muddy Mountains, and Wheeler Pass HMAs in 2005 following extensive opportunities for public review and comment. Additionally, there were no appeals of BLMs final decisions. These decisions remain in effect.
7	Cindy MacDonald	What I can attest to is their efforts to inform, educate and include the public on this gather proposal is lacking.	This issue is outside the scope of the environmental analysis. The LVFO conducted extensive public outreach relative to the SMC proposed gather, beginning with scoping in July 2006; the preliminary EA was made available for public review and comment in November 2006. Additionally, BLM hosted two public meetings and two range condition tours to explain the need for the proposal, answer any questions, and take public comments. The BLM also consulted with USFS and NDOW throughout the environmental analysis process.
8	Cindy MacDonald	In order to ensure wild horse preservation within the SMC, the Johnnie HMA/WHT should be designated as an area of critical environmental concern to preserve the current and future survival of wild horses in both the Wheeler Pass and Johnnie HMA/WHTs.	This issue is outside the scope of this analysis. The decisions establishing AML for the SMC remain in effect and current resource monitoring data indicates those numbers are appropriate given existing resource conditions.
9	Larry and Cynthia Jones	Hay dropping can be an alternative and people in Nye County can assist.	This comment was one of many incorporated into Issue 1 and 2 in the EA (page 7). In preparing the EA, BLM considered an alternative to provide supplemental feed (hay); however, providing

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 74

			supplemental feed does not meet the definition of minimum feasible management and is inconsistent with current law, regulation and policy (refer to the EA, page 12 and 43 CFR 4710.4).
10	Larry and Cynthia Jones	What about the building going on where land is being taken to supply houses?	This issue is outside the scope of this environmental analysis. BLM has been directed by Congress to provide for the orderly disposal of public lands within the Las Vegas Valley. To date, about 13,000 acres have been sold. BLM prepared an environmental impact statement (EIS) in December 2004, analyzing the impacts of disposal of 28,000 additional acres. Current land sales are consistent with the law and the EIS analysis.
11	Larry and Cynthia Jones	What happened to the water at Blue Diamond mine?	This issue is outside the scope of this environmental analysis. The State of Nevada has responsibility for allocating water resources; BLM is unable to base AML on private land water which the private landowner may elect to make unavailable for WH&B use at any time. However, BLM did consider an alternative to develop additional water locations on public land (refer to the EA, page 12).
12	Larry and Cynthia Jones	We know the gather will stress out or kill the older horses, etc.	This comment was incorporated into Issue 2 in the EA (page 7). Concerns about stressing or killing horses as a result of the gather operation are addressed in the EA (page 21-26 and page 38-39). Prior to the passage of the 1971 Wild Free-Roaming Horses and Burros Act, mustangers used fixed wing aircraft to round up wild horses and burros with none of the controls we have today. Since the passage of the 1971 Act (as amended), all capture and handling activities are conducted in accordance with Standard Operating Procedures (SOPs). The use of helicopters and motorized vehicles has proven to be a safe, effective and practical means for the gather and removal of excess wild horses and burros from the range.
13	Larry and Cynthia Jones	Where are these older horses and burros going to go? We are concerned they will be killed.	This comment was one of many incorporated into Issue 2 in the EA (page 7). Also, as discussed in the EA (page 9, page 37, and Appendix VIII), excess wild horses and burros removed from the range would be shipped to BLM holding facilities where they will be prepared for adoption and/or sale to qualified individuals or long term holding. BLM does not sell any wild horses or burros to slaughterhouses or to “killer agents”. In enforcing the 1971 Wild Free-Roaming Horses and Burros Act, the BLM continues to work with law-enforcement authorities in investigating and prosecuting all who violate this landmark law. After wild horses and burros are removed from the range, the Bureau works to place as many animals as possible into private care through adoption or sales (more than 213,000 animals have been placed in private ownership since 1973). Under a December 2004 amendment to the 1971 wild horse law, animals over 10 years old -- as well as those passed over for adoption at least three times -- are eligible for sale, in which the title of ownership passes immediately from the Federal government to the buyer. Since the amendment took effect, the BLM has sold nearly 2,000 horses and burros. The BLM encourages those

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

			who are interested in providing good homes to wild horses or burros to visit the agency's Website (www.blm.gov) for information about adoptions and sales.
14	Larry and Cynthia Jones	We have been given two weeks to write comments out which we feel won't even matter.	<p>This information is incorrect. The preliminary EA was made available to the interested public for a 30 day public review and comment period on November 7, 2006. BLM has carefully considered all the comments received prior to finalizing the EA and issuing the decision.</p> <p>As part of BLM's environmental analysis process, a scoping letter (July 3, 2006) was mailed to 52 individuals, groups and agencies on the LVFO's wild horse and burro interested parties mailing list; comments were received from 23 individuals, groups and agencies (refer to the EA, page 34-39 and Appendix VIII for a detailed summary of the comments received during scoping and how BLM used the comments in preparing the preliminary environmental assessment).</p> <p>In addition to public scoping and making the EA available for a 30 day public review and comment period, the LVFO hosted two public meetings in Pahrump and Cold Creek (November 14 and 16, from 6 p.m.-8 p.m.) to explain the need for the gather, answer questions, and take public comments; BLM also hosted two tours to view on-the-ground resource conditions (November 15 and 18, from 10:00 a.m. to noon).</p>
15	Larry and Cynthia Jones	To manage the herd, they could plant grass at higher elevations. Volunteers could help.	This issue is outside the scope of this environmental analysis. BLM did not consider an alternative to plant grass at higher elevations; this action would be a long-term action and as such, is outside the scope of the existing environmental analysis.
16	Larry and Cynthia Jones	What kind of evil is this? Sterilizing horses for 2 years with some drug from pork and branded with nitrogen.	This comment was one of many incorporated into Issue 3 in the EA (page 7). In response to public scoping, BLM considered an alternative to apply fertility control to slow foaling rates and extend the period of time between gathers (refer to the EA, page 9, 11, and 21-26, as well as pages 34-39 and Appendix VIII).
17	Hal and Suzanne Gray Elizabeth Cogan	The people should go before you remove these beautiful horses and burros. Stop building all the homes. There would be enough feed if you didn't encroach on their land.	This issue is outside the scope of this environmental analysis. Please refer to BLM's response to Comment 10 above.
18	Hal and Suzanne Gray	The amount of money that BLM has is a lot, if it were just managed better.	This issue is outside the scope of this environmental analysis. Concerns about BLM budget are administrative issues internal to BLM. Refer to the EA, page 7 and Appendix VIII).
19	Hal and Suzanne Gray	Up in northern Nevada, you let the ranchers graze their cattle and sheep for next to nothing. Let them pay for their own damn feed – we all do!!	Northern Nevada is outside the project area and livestock grazing is outside the scope of this environmental analysis. Limited domestic livestock have utilized the SMC for over 30 years and no livestock use has occurred in the past 10 years. Refer to the EA, page 7, Page 13 and Appendix VIII.
20	Hal and Suzanne Gray	Your money could be better spent to manage the herds through	This comment was one of many incorporated into Issue 3 in the EA (page 7). Fertility control is an

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 76

		reproductive practices.	option considered in detail in this environmental assessment. Please refer to the EA, page 9-10, 21-26 and Appendix V.
21	Tamra Vannucci	There is a little miracle pill called birth control. Its purpose is to prevent pregnancy. I would think it could be used rather than gathering these horses.	Please refer to BLM's response to Comments 16 and 20 above.
22	Tamra Vannucci	How dare you think you can murder our wildlife?	Please refer to BLM's response to Comment 12 above.
23	Nevada Department of Wildlife	We recommend the Bureau adopt Alternative B (Low Point Appropriate Management Level) with the addition of one-time fertility control. Under BLM's proposed action, the number of animals will exceed AML in a short amount of time if they are not reduced to the lower limit.	While Alternative B, with the addition of one-time fertility control, would result in lower population rates over the next 1-5 years than BLM's proposed action, population modeling indicates the population would remain below the Forest Service AML of 147 horses and 146 burros for the three BLM HMAs and three Forest Service WHTs within the planning area. Refer to Table 4 in the EA (page 23).
24	Nevada Department of Wildlife	The Department recommends the number of burros in Johnnie be lowered to at least the lower point of the BLM AML of 54 burros, until it is possible to remove all the horses in accordance with BLM EA NV-052-05-399 and Decision Record which sets AML based upon finite amounts of water and forage.	Under BLM's Proposed Action, the post-gather number of burros on Johnnie would be a maximum of 60 (the mid-point of the USFS AML) and within 6 head of the low range of BLM's revised AML of 54-108 burros.
25	Nevada Department of Wildlife	We find it inappropriate for BLM to continue to manage for the same numbers of wild horses as the AML established prior to the 2005 Goodsprings Fire which damaged about 30% of the HMA.	To address the loss of habitat BLM conducted an emergency removal of 22 wild horses following the 2005 Goodsprings fire. Refer to EA NV-052-2006-77 and DR/FONSI dated February 15, 2006 for more information.
26	Nevada Department of Wildlife	The Department continues to oppose the addition of four Wheeler Pass mares into Red Rock. The Bureau does not support this need with any study or analysis of data. Additionally, the addition of four horses would put the total adult population of horses in Red Rock over the AML.	This decision was made in the Decision Record/Finding of No Significant Impact and EA NV-050-04-346 dated September 3, 2004. Although Wild Horse Organized Assistance has appealed BLM's decision to introduce Wheeler Pass mares into to the Interior Board of Land Appeals (IBLA), a stay of that decision was not requested nor did IBLA take any action within the prescribed timeframes. Therefore, in accordance with 43 CFR Subpart B, Part 4.21, BLM's decision is in effect unless IBLA should rule on the appeal to the contrary.
27	Nevada Department of Wildlife	The Department requests that gathers and other work be coordinated with our staff prior to the development of the environmental assessment to avoid sensitive wildlife areas and time period for wildlife as well as to avoid conflicts with various hunting season.	BLM will continue to coordinate with the Nevada Department of Wildlife as it relates to the management of wild horses and burros to avoid sensitive areas/time for wildlife and to minimize conflict with hunting seasons.
28	Nevada Department of Wildlife	The Bureau must back away from proposed management which parallels domestic livestock ranching practices.	Please refer to BLMs response to Comment 26 above.
29	Nevada Department of Wildlife	Population data collection needs to be increased with the	Under the Proposed Action, BLM will be collecting population data on an annual basis for each of the

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

		understanding that computer modeling has limited predictive applications.	HMAs/WHTs in the SMC, together with resource monitoring data. Refer to the EA, Appendix V.
30	Nevada Department of Wildlife	Past capture and population data needs to be included with more detail in the EA.	This information has been corrected in the final EA (refer to page 4).
31	Allen Young Kate Ryan Mary Floyd Robert Fleck Raquel Ferotti Polly McClendon Linda Springer Mindy Jones Jewel Glavey Janie Giaque Leslie Crews Mandy O'Connell Crista Carroll Phyllis Laferriere Rosemary Freskos Becky Marr Jane Whitehead Raynee Foster Toni Martin Bhavani Johnson	Mustang herds and wild burros are part of our western heritage. I do not understand why they continue to be the subject of such relentless persecution to say nothing of the terrible waste of time and money to the loss of these great beings. The above represents a waste of tax dollars and mismanagement of our natural resources. Keep the horses where they are.	These comments are incorporated in Issue 1 in the EA (page 7). The need to remove excess horses and burros is discussed in the EA, page 4-5 and 34-35. Also refer to BLM's response to Comments 1 and 3 above.
32	Allen Young Kate Ryan Mindy Jones Maggie Frazier Jane Whitehead Darynne Jessler Billy Bob Chetter Lacey Strictner Bob Goldberg Donna Cronin Joel Axberg	It is my understanding that hundreds of horses and burros are to be rounded up for the purpose of slaughter or shipment to slaughter. Why do we slaughter them for the benefit of thankless Frenchmen who have a taste for horse meat? Or for dog meat and money?	These comments are incorporated in Issue 2 in the EA (page 7). Also refer to the EA, page 36-37 and BLM's response to Comment 13 above.
33	Robert Fleck Linda Springer Jewel Glavey Phyllis Laferriere	It strikes me as incredible that after this latest round, BLM will have zeroed out horses from 6 out of 9 HMAs in the area. A total of 4 HMAs will have lost their burro populations.	This information is incorrect. The LVFO manages 5 herd management areas comprising 2.1 million acres which were designated as suitable for long-term management of wild horses and burros in the 1998 Las Vegas Resource Management Plan (RMP). The acreage represented in the five HMAs represents about 81% of the acreage initially identified as herd areas following the passage of the 1971 Wild Free-Roaming Horses and Burros Act. The difference is attributable to about ¼ million acres which was transferred to the USFS through the 1987 Forest Enhancement Act and is managed for WH&B today and ¼ million acres which was identified as unsuitable for long-term wild horse or burro use in the Las Vegas RMP. For more information, please refer to the EA, page 7, page 9-11, page 21-26 and Appendix VI. As discussed in the EA, the estimated population remaining on the range following the proposed gather would be 104 wild horses and 120 wild burros. Following the gather, the BLM LVFO will continue to manage burros on four HMAs: Red Rock, Johnnie, Wheeler Pass and Gold Butte, while wild horses will continue to be managed on Wheeler Pass, Red Rock, Johnnie and the Nevada Wild Horse

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 78

			Range.
34	Robert Fleck Polly McClendon Jewel Glavey Raquel Ferotti Phyllis Laferriere Darynne Jessler	Cold Creek is the site of a mystery helicopter roundup. About 200 horses are feared gone yet BLM denies any horses were taken.	Please refer to BLM's response to Comment 3 above.
35	Alicia Mitchell Maggie Frazier Darynne Jessler Elizabeth Cogan	Hundreds of thousands of people want to visit the land and see the wildlife. Equine tourism could be a big thing so why aren't the herds and the diversity out there being preserved?	This issue is outside the scope of this analysis. BLM has determined that excess horses and burros are present based on current available information and in accordance with Section 3 (b) (2) of the Wild Free-Roaming Horses and Burros Act they must be removed to prevent further range deterioration. Refer to the EA, page 4-5 and page 34-35.
36	Linda Springer Rosemary Freskos Darnne Jessler Raynee Foster Bhavani Johnson	I am appalled these roundups are allowed to continue given the trauma and injury sustained by the animals.	Please refer to BLM's response to Comment 12 above.
37	Linda Springer Rosemary Freskos Bhavani Johnson Elizabeth Cogan	Cattle cause destruction of the range, not horses. I am disgusted that Nevada cattle ranchers have exclusive influence over BLM. I would like to see a Congressional investigation into this.	Please refer to BLM's response to Comment 19 above.
38	Linda Springer	BLM continues to use 20% to calculate projected equine population growth when the National Academy of Sciences has calculated this number to be 10%.	We would appreciate receiving a copy of the National Academy of Sciences report you reference. However, BLM conducts census to determine actual population growth for each HMA. Please refer to the EA, page 37 for more information.
39	Linda Springer Jewel Glavey Polly McClendon	I am concerned that equine populations are being thinned to the point they won't be genetically viable anymore.	The addition of four mares from the Wheeler Pass HMA into the Red Rock HMA is intended to minimize the risk for inbreeding potential is included in the Proposed Action (refer to the EA, page 9-10). Also refer to BLM's response to Comment 26 above.
40	Linda Springer	I urge you to call for a moratorium on roundups until an independent assessment of the current numbers of wild horses can be made.	Please refer to the EA, page 4-5, page 9-11 and page 34-35. Also refer to BLM's response to Comments 1 and 3 above.
41	Cathy Wells	Let's figure out a balance between what was there before and what we need now to sustain our current population. What would be a harmony between them for the future?	This issue is outside the scope of this analysis. BLM established AMLs (appropriate numbers) of wild horses and burros in previous decisions which remain in effect. The AML is the number which achieves a thriving natural ecological balance and multiple use relationship. Refer to the EA, page 7-8, 21 and 22, and page 35-36 as well as Appendix VIII.
42	Darynne Jessler	With such low numbers, I absolutely disagree with the use of fertility control on the mares. Eliminating fertility drugs is the right thing to do.	This comment was incorporated into Issue 3 in the EA (page 7). Also refer to page 9-11 and Appendix V. Under the Proposed Action, a one-year treatment of PZP is proposed rather than the two year PZP. As an additional measure, subsequent treatments of PZP via remote delivery would only be conducted if population growth rates exceed 5%, thus assuring the long-term survival of the herds. Also refer to the EA, page 22 and population modeling results in Appendix VII.
44	Craig Downer	By cutting the wild horses down to extremely low population levels, then injecting mares with a	This comment was addressed in Issues 2 and 3 (EA, page 7). Also refer to the EA, page 21-27 and Appendix V and VII. Population modeling was

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

		birth control agent, you are setting these animals up for a serious decline. You do not discuss the effects of the PZP drug on WH&B survivability nor on their quality of life.	completed to determine if any of the alternatives, including application of fertility control, would cause the population to crash. Minimum population levels and growth rates were found to be within reasonable levels and adverse impacts to the population are unlikely. Individual mares who do not foal annually often see improvement in condition because they are not nursing a foal. Finally, subsequent treatment with PZP would only be completed if population growth rates exceed 5%. Foaling rates of less than 5% would result in no followup treatment with PZP.
45	Craig Downer	Please redo this assessment to provide for fairer numbers within the vast legal herd areas established under the Act. Also, relative proportions of livestock and big game as compared to WH&B are not noted.	This issue is outside the scope of this analysis (refer to the EA, page 7). AMLs were previously established based on in-depth analysis of monitoring data collected over several years and issuance of final decisions. Those decisions remain in effect. Limited livestock grazing has occurred within the SMC for the past 30 years and no livestock grazing has occurred in the past 10 years (refer to the EA, page 13). The Nevada Department of Wildlife is responsible for estimating wildlife populations; resource monitoring data indicates heavy to excessive utilization. NDOW estimates elk populations below establish management levels while wild horse and burro numbers are in excess of established management levels.
46	Craig Downer	I suggest the following additional alternatives: the use of artificial barriers to keep the horses from clashing with civilization; eliminate livestock grazing; use Streiter-Lite reflectors to prevent animals from coming onto the road at night; WH&B should be allowed to self-stabilize their population numbers within the available habitat.	These issues are outside the scope of this environmental analysis. However, BLM has constructed 26 miles of fence along SR 159 to prevent animals from moving off the Red Rock HMA and into urban communities. An additional 10 miles of fence is currently being constructed between north and south SR 159 and fencing has been constructed along SR 160 in several different locations. As discussed above, limited livestock grazing has occurred within the SMC over the past 30 years and no livestock grazing has occurred in the past 10 years. Use of the suggested reflectors is something BLM would be interested in investigating further for possible future use. In the absence of sufficient numbers of natural predators, wild horses and burros are likely to suffer from starvation and destroy their habitat long before their numbers stabilize. This would be cruel and inhumane when other reasonable alternatives exist.
47	Craig Downer	Burros should be regarded as a restored native genus and horses as a restored native species.	This issue is outside the scope of this analysis. Whether horses and burros are restored or reintroduced, BLM has considered the current available information. Based on that information, BLM has determined that an overpopulation of horses and burros exists. As a result, excess horses and burros must be removed consistent with Section 3 (b) (2) of the 1971 Wild Free-Roaming Horses and Burros Act.
48	Craig Downer	Forage and water should be reallocated to WH&B or HMAs should be expanded to the original HA boundaries or areas substituted of equal size. These areas should be managed principally for WH&B.	These issues are also outside the scope of this analysis (refer to the EA, page 7). Also refer to the 92 nd House Conference Report in which Congress outlines it's intent in passing the 1971 WH&B Act was to manage wild horses and burros as a component of multiple use management on the public lands, not a single use.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

49	Craig Downer Barbara Warner	The SMC totals 771,625 acres, 3445 acres per wild equid. This enormous area is capable of supporting at least a few thousand equids.	This issue is outside the scope of this analysis. AML was previously established. Those decisions remain in effect.
50	Ben Lynch	When was the inventory taken? Was it taken by helicopter?	The current estimated population of wild horses and burros within the SMC is based on population census and distribution flights completed from March 2004 through December 2006 as well as on the ground monitoring and observation. Refer to the EA, page 4 and 21-22.
51	Ben Lynch	How does management work between NRA and BLM and USFS?	The USFS manages three WHTs within the Spring Mtns NRA. BLM manages three HMAs. BLM has taken the lead on this project through an interagency agreement with the USFS. Refer to the EA, page 1 and page 21-22 for more information.
52	Ben Lynch	Wasn't there a horse plan put together 12 years ago by BLM, USFS and NDOW?	The Toiyabe National Forest Las Vegas Ranger District compiled a Wild Horse and Burro Review in 1992. This document along with the Summary of the Analysis of the Management Situation of SMNRA completed in 1995 was both components used to develop the SMNRA General Management Plan that was completed in 1996. BLM completed the establishment of appropriate management levels in December 2005.
53	Ben Lynch	Are we being told the truth or is there an underlying agenda concerning Native Americans?	The BLM has no underlying agenda. Resource monitoring data coupled with population census and distribution data was carefully evaluated prior to BLM's determination that excess horses and burros are present and require removal.
54	Ben Lynch	The horse population around Wheeler Wells is already low and has already been impacted.	BLM established AML with the opportunity for the public to comment. The Johnnie HMA was determined to be more suited for burro management; however, under the Proposed Action approximately 40 wild horses will be returned to the Johnnie HMA.
55	Ben Lynch	Don't burros impact bighorn sheep?	You are correct there is competition between wild horses and burro with wildlife including bighorn sheep.
56	Ben Lynch	Do we manage horses and burros like we do American Indians?	We are uncertain as to what inference the commenter wishes us to make. Without significant numbers of natural predators, horse and burro populations can grow 20% or more per year. To slow population growth, the use of one-year PZP with the opportunity for followup treatments, as needed, based on monitoring, is included in the Proposed Action (refer to the EA, page 9-10, 21-27 and Appendix V).
57	Ben Lynch	Hasn't BLM or USFS caused some of this problem by moving these horses from one place to another?	This issue is outside the scope of this analysis. However, it is important to note that BLM has not yet moved horses from one place to another. Under a future action, however, BLM will be assessing introducing 4 mares from Wheeler Pass into the Red Rock horse herd to minimize the potential for inbreeding. To assure they are successfully integrated into the existing herd, they will be held temporarily near existing water locations before being released.
58	Ben Lynch	How accurate are the AML documents?	This issue is outside the scope of this analysis. Refer to BLM's response to Comments 6 and 41 above.
59	Ben Lynch	We would like to see the LJ herd maintained at adequate levels that are visually acceptable.	Please refer to BLM's response to Comment 54 above.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 81

60	Dennis Lara	I think it's pretty sad that the outcome is going to be no horses up here.	This information is incorrect. Current population numbers of horses will be reduced from about 374 to 112. Even with application of fertility control, the population is expected to grow to beyond the AML of 147 horses within 4-5 years. While opportunities for viewing horses will be reduced over the current situation, horses will remain on the SMC for viewing (refer to the EA, page 9-10, and 20-27).
61	Billie Young	Our local herd areas have unique challenges and require innovative approaches that require more than a minimum level of management. Addressing recreation impacts, maintaining water sources, and public education, outreach and marketing are all needed.	This issue is outside the scope of this environmental analysis. Refer to the EA, page 4-7.
62	Billie Young Laurie Howard Kathy Valente Cindy MacDonald	Allowing people to stand up and speak in front of all parties should have been allowed at the public meetings.	This issue is outside the scope of this environmental analysis. The format for public meetings is at the authorized officer's discretion. BLM held two public meetings (November 14 and 16, 2006) to share information, answer questions, and take public comment (both oral and written). <ul style="list-style-type: none"> Public comments were accepted two ways at the meeting: verbally to the court reporter and written on forms. The public was also invited to provide written comments until December 7, 2006. Free exchange of ideas and information sharing was encouraged through the open houses at the beginning of the meeting and during public comment time. No one was barred from listening to the public comment given to the court reporter. The structure of the comments was given based on feedback from previous meetings where people who disagreed with a vocal group did not feel comfortable offering their verbal comments. November 15-18, 2006 – Two range condition tours were also held to share information, provide those concerned with an opportunity to view on the ground range and animal conditions and answer questions. Also refer to BLM's response to Comments 7 and 14 above.
63	Michelle Hendry	An accurate count of the population is needed, not a variation in numbers between BLM and the USFS.	This information is incorrect. There is no discrepancy between BLM and the USFS relative to current estimated populations of horses and burros.
64	Michelle Hendry	Utilize birth control by the dart method instead of roundups to control the population.	This comment was incorporated in Issue 3 (EA, page 7).
65	Larryne Lologo	I would like to see darting and the use of PZP.	This comment was incorporated in Issue 3 (EA, page 7).
66	Larryne Lologo	I would like to see more local adoptions.	This issue is outside the scope of this analysis. Refer to the EA, page 7-8. If you are interested in adopting a horse or burro and meet BLM's minimum adoption and facility requirements, please complete an adoption application and forward it to the Las Vegas

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

			Field Office, attn: Jerrie Bertola.
67	Laurie Howard	The numbers will be too low for genetic viability.	Please refer to BLM's response to Comments 42 and 44 above.
68	Laurie Howard	Had BLM used birth control in the past, a gather would not be needed now.	This issue is outside the scope of this analysis. BLM's use of birth control is restricted to immunocontraceptive research under the Humane Society of the United States and may or may not have been available for use in the past.
69	Kathy Valente	The ground left to the mustangs in the 1971 survey is very outdated. The land left to them should be refurbished rather than the mustangs being eliminated. Rather than using money for gathers, money should be used to refurbish habitat.	This issue is outside the scope of this analysis. Some habitat restoration is underway within the SMC following wildfire in 2005; however, an effective and affordable means to rehabilitate large acreages of Mojave desert ecosystem has not yet been found.
70	Kathy Valente	The 1971 numbers the BLM and USFS are relying on are too low and that managing for a herd of 47 mustangs is an injustice.	Please refer to BLM's response to Comments 39, 42 and 44 above.
71	Joel Axberg	The problem I see is that the horses have no natural predators.	That is correct. Natural predators are not present in sufficient numbers to effectively control horse and burro population numbers.
72	Joel Axberg	I would propose females be sterilized with PZP, it would be the same as a round up and cost a lot less money.	This comment was one of many incorporated in Issue 3. PZP does not sterilize females. However, it does provide an effective means of birth control in treated mares from 1-3 years, depending on the dose administered. Therefore, it is proposed for use in the Proposed Action (refer to the EA, page 9-10).
73	America's Wild Horse Advocates Billie Young Robert Wiemer	Gathers are not an acceptable substitute for proper long term management.	This issue is outside the scope of this environmental analysis. Please refer to BLM's response to Comment 8 above.
74	America's Wild Horse Advocates	Each HMA/WHT has an individual census and AML which is not appropriately displayed in the EA.	Please refer to the EA, page 22 for information.
75	America's Wild Horse Advocates Billie Young	BLM has not expressed the historic value of our herds, nor addressed their significance in our past, present or future and has failed to develop any management plan incorporating the importance of wild horses and burros to our nation's history or our lives.	This issue is outside the scope of this environmental analysis. BLM has previously designated areas suitable for long-term management of wild horses and burros as herd management areas (1998 Las Vegas RMP) and established appropriate management levels of wild horses and burros (2004 and 2006). These decisions remain in effect. Refer to the EA, page 7-8.
76	Nevada Division of State Lands	This division has no comment on this project.	Thank you.
77	State Historic Preservation Office	Proposal supported as written.	Thank you.
78	Joy Lynn Smith	Burros are not the problem, humans are. Maybe if the fences were repaired, signs posted and the area patrolled by police, people would slow down. The animals should be left alone.	This issue is outside the scope of this environmental analysis. Refer to BLM's response to Comments 1, 3, and 6 above.
79	Laurie Howard	Leaving 26 wild horses in Cold Creek while keeping hundreds of elk in the same location is a political move. Bringing horse numbers to 26 will nearly wipe out the herd's ability to continue	This information is incorrect. Post-gather numbers of wild horses and burros in the Wheeler Pass/Spring Mountains HMA/WHT (Cold Creek) are estimated at 47 horses and 20 burros.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 83

		with healthy horses over the years.	
80	Laurie Howard	Removing 4 mares from Cold Creek and placing them in Red Rock will be their death sentence. These horses will not have the knowledge to find water and forage in a harsh desert environment.	This decision was previously made (refer to the EA, page 9). Also refer to BLM's response to Comment 57 above.
81	Laurie Howard	The WH&B Specialist was unable to answer statistical questions at the Cold Creek meeting. I am disappointed in the lack of communication when it comes to horses and burros. It is time for a different administrative approach.	Comments regarding staffing are internal to BLM and thus outside the scope of this environmental analysis. Moreover, BLM has stringent requirements for both education and experience for all positions. Existing staff is more than qualified to manage the LVFO's wild horse and burro program.
82	Melody Hendry	I feel that Alternative A is the most reasonable.	Thank you.
83	Melody Hendry	I believe the number of 104 wild horses and 120 burros is too low to maintain genetically diverse herds.	This issue is outside the scope of the environmental analysis. AMLs were previously decided and remain in effect. Refer to EA, page 7-8.
84	Melody Hendry	I feel subjecting all the released mares to fertility control is excessive.	This comment was addressed in Issue 3. Refer to EA, page 7.
85	Melody Hendry	I support fertility control efforts and bait trapping as opposed to helicopter gathering for the management of these animals.	This comment was addressed in Issues 1, 2 and 3. Refer to EA, page 7.
86	Janet Rhea Little Donna Cronin	I would like to see birth control used instead of a gather.	This comment was addressed in Issues 1, 2 and 3. Refer to EA, page 7.
87	Janet Rhea Little	Cold Creek residents have some horses they would like to see remain on the range, if possible.	BLM is responsible for selecting the horses to be removed and/or returned to the range post-gather. Consistent with the Standard Operating Procedures (EA – Appendix I), BLM will designate a contracting officer's representative and/or project inspector to oversee the gather and removal operation. Selection of animals for removal and/or release will also be guided by BLM's <i>Gather Policy and Selective Removal Criteria for Wild Horses</i> (Washington Office IM 2005-206, EA-Appendix IV). Consistent with this policy, wild horses five years of age and younger will be the first priority for removal and placement into the national adoption program. BLM is responsible and has the final decision relative to selecting the horses for return to the range post-gather. However, in selecting between one horse or another, BLM is willing to consider suggestions provided that the health and safety of the animals and the public can be assured.
88	Janet Rhea Little	I hope wild horse training classes will be something that is going to be done. This would be a wonderful thing to bring public attention.	This issue is outside the scope of the environmental analysis. Refer to the EA, page 7-8.
89	Ned and Edna Clem	We would like to express our support for a wild horse roundup. It is our observation that there are too many horses to be in balance with the land in Cold Creek. The good grasses have taken over by	Thank you.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50 84

		cheatgrass, foxtail and other weeds that are not good forage and are more flammable than native grasses, making Cold Creek very vulnerable to wild fire.	
90	Ned and Edna Clem	After the round up, we would like to see BLM consider some form of birth control to prevent the uncontrolled growth of horses. This would prevent the expense of major roundups and money to support those horses removed from the land.	This comment is addressed in Issue 3 (EA, page 7) and is also addressed in the Proposed Action (EA, page 9-10).
91	Mindy Vannucci Robert Wiemer	I am concerned that the BLM person I spoke to has only been in southern Nevada for three years. Surely our wild horses deserve a more knowledgeable person.	This is an administrative issue internal to BLM and is outside the scope of this environmental analysis. Also refer to BLM's response to Comment 81 above.
92	Mindy Vannucci	I am also disturbed that the USFS and BLM just can't seem to communicate.	This information is incorrect. The BLM has consulted with the USFS throughout the environmental analysis approach, and is working together under an Interagency Agreement.
93	Mindy Vannucci	If the animals have grown to huge numbers, birth control must be used, not adoption or sending our loved ones to slaughter.	This comment was addressed in Issues 1, 2 and 3. Refer to EA, page 7. Also refer to BLM's response to Comments 1, 13 and 32 above.
94	Mindy Vannucci	Why don't you ask the Cold Creek residents for help?	This is an administrative issue internal to BLM and is outside the scope of this environmental analysis. However, BLM appreciates the public's interest in Cold Creek horses and burros and is actively exploring opportunities to expand the existing WH&B volunteer program in Las Vegas.
95	Barbara Warner	Alternative D (No Action) is strongly favored. The EA does not provide for a sustainable population of wild horses and burros. Because of roundups and PZP, these animals face extinction.	The No Action alternative is considered in detail in the EA (page 10, and page 21-27).
96	Barbara Warner	The 1990 and 1991 GAO reports wild horses have not been found to cause damage to the range. Wild horses are part of a healthy, biodiverse ecosystem.	This comment is one of many incorporated into Issue 1 in the EA (page 7). Provided that wild horses are managed in balance with other uses and the productive capacity of their habitat, horses and burros can be part of a healthy biodiverse ecosystem. Refer to Section 3 (a) and (b) (2) of the 1971 Act, as amended. Also refer to 43 CFR 4700.0-6 (a) which states: " <i>Wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat</i> (emphasis added)."
97	Donna Cronin	We asked for a viable herd in Cold Creek, at least 60 horses remain.	This comment was one of many incorporated into Issue 2 (EA, page 7).
98	Cindy MacDonald	The LVFO must address the disparity between established AMLs for HMAs and WHTs in the SMC. AMLs should be re-evaluated; in the interim, BLM and USFS must adhere to the	This issue is outside the scope of this environmental analysis. Refer to the EA, page 4, 7-8 and 21-22.

Spring Mountains Herd Management Complex – Final Population Management Plan and Environmental Assessment NV-052-2007-50

		current AMLs and re-submit a proposal that is in compliance with the AMLs for the SMC.	
99	Cindy MacDonald	The estimated wild horse population must be addressed and properly reported.	This comment is addressed in the EA, page 4 and 22.
100	Cindy MacDonald	Why are 40 wild horses being returned to the Johnnie HMA when BLM set the AML as 0? How does BLM plan to manage for 0 wild horses in Johnnie when there is historical movement of horses between Johnnie and Wheeler Pass?	This comment is addressed in the EA, page 21-22.
101	Cindy MacDonald	Why hasn't BLM purchased private acreage with water rights to provide water for horses and burros? Also, why hasn't additional water been developed consistent with the LV RMP?	This issue is outside the scope of this environmental analysis. AML was previously established and these decisions remain in effect (refer to the EA, page 7-8). Opportunity exists to adjust AML in the future pending a change in the available forage and water resources or based upon in-depth analysis of resource monitoring data and issuance of a BLM decision.
102	Cindy MacDonald	Please explain how AML was set for Wheeler Pass.	This issue is outside the scope of this environmental analysis. AML was previously set and the decision remains in effect. Refer to the EA, page 4, 7-8 and 21-22.
103	Cindy MacDonald	At what point will BLM consider wild horse populations to be dangerously low and take action to safeguard the continuation and protection of wild horses in southern Nevada?	This comment was one of many incorporated into Issue 2 (EA, page 7).
104	Cindy MacDonald	What needs to be resolved is: <ol style="list-style-type: none"> 1. Basing removal numbers on established AMLs. 2. Releasing an accurate population estimate. 3. Increasing the amount of water allocated to horses in Johnnie. 4. Including wildlife water developments in determining AMLs. 5. Provide proper rangeland evaluations. 6. Secure land/water sources that are of significant value to wild horses, burros and wildlife. 7. Be more responsive – implement a volunteer program. 	Issues 3, 4, 5, 6 and 7 are outside the scope of this environmental analysis. Refer to the EA, page 7-8, and page 11-12. Issues 1 and 2 (in the column to the left) were incorporated into Issues 1 and 2 in the EA (refer to page 7). Also refer to page 4 and 22.